ANCIENT EGYPT

1928. MARCH. PART I.

CONTENTS.

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1928. JUNE. PART II.

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ANCIENT EGYPT

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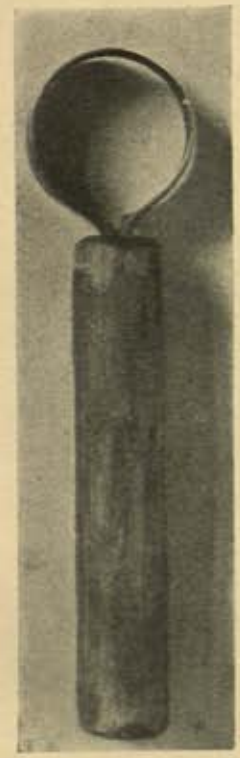

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ANCIENT EGYPT

1928. DECEMBER. PART IV.

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ANCIENT EGYPT.

EGYPTIAN USE OF BEER AND WINES.

THE alcoholic beverages of ancient Egypt were of two kinds, beer and wine.

I.—BEER is frequently mentioned in the ancient records,[1] the earliest reference known to the writer being one of the Vth dynasty, in which beer is named as a mortuary-offering.[2] As a beverage, therefore, beer must be of still earlier date.

Egyptian beer is referred to by several of the classical writers; thus, Herodotus says that the Egyptians drank a wine obtained from barley.[3] Diodorus states that they made a drink from barley, which " for smell and sweetness of taste " was " not much inferior to wine."[4] Strabo says that barley beer was a preparation peculiar to the Egyptians and that it was " common among many tribes, but the mode of preparing it differs in each,"[5] and that it was one of the principal beverages of Alexandria.[6] This same writer also states that the Ethiopians made a drink both from barley and from millet.[7] Pliny says that an intoxicating beverage was made in Egypt from corn.[8]

Naturally none of the ancient beer has remained to the present day, and therefore it has not been possible to examine it, and though specimens described as the dried residue of beer have been found, these have not been analysed.[9] Barley and barley mash derived from beer-making have also been found.[10] It is practically certain, however, that, both in mode of preparation and in composition, the ancient Egyptian beer approximated closely to the modern Nubian drink called *bouza*, which may now be described.

Bouza.—Burckhardt states that, in Berber (Nubia), *bouza* was made from strongly leavened millet bread, which was broken into crumbs, mixed with water, and kept for several hours over a slow fire, after which more water was added and the mixture left for two nights to ferment. He describes the ordinary

[1] J. H. Breasted, *Ancient Records of Egypt*, V (Index), p. 108. A. Erman, *The Literature of the Ancient Egyptians*, translation by A. M. Blackman, 1927. [*See* the *otakh* (brewery) in the IIIrd dynasty, ANCIENT EGYPT, 1926, p. 16.]

[2] J. H. Breasted, *op. cit.*, I, 252.

[3] II, 77.

[4] I, III.

[5] *Geography*, XVII, II, 5.

[6] *Ibid.*, XVII, I, 14.

[7] *Ibid.*, XVII, II, 2.

[8] *Natural History*, XIV, 29.

[9] W. M. Flinders Petrie and J. E. Quibell, *Naqada and Ballas*, 1896, p. 19. W. M. Flinders Petrie, *Prehistoric Egypt*, 1920, p. 43. H. E. Winlock, *Bull. Egypt. Exped.*, 1918–20; *The Met. Mus. of Art, New York*, II, 1920, p. 32. C. M. Firth, *The Arch. Survey of Nubia*, Report for 1909–10, p. 17.

[10] W. M. Flinders Petrie, *Gizeh and Rifeh*, 1907, p. 23.

bouza as not being strained and looking more like soup or porridge than a beverage, but mentions a better quality obtained by straining through a cloth.[1] He also says that barley was sometimes used instead of millet and produced a superior beer, which was of a pale muddy colour and very nutritious, and that in Cairo and all the towns and larger villages of Upper Egypt there were shops for the sale of *bouza*, kept exclusively by Nubians.[2]

Bruce gives a similar account of the preparation of *bouza* in Abyssinia.[3]

Lane states that *bouza* was usually made from barley bread, crumbled, mixed with water, strained and left to ferment, but that occasionally the barley was replaced by millet.[4]

Specimens of *bouza* (fourteen different samples) purchased from retail dealers in Cairo, and examined by the writer, had the appearance of thin gruel; they contained much yeast, were in a state of active fermentation, and had all been made exclusively from coarsely ground wheat, but whether directly from flour, or indirectly from bread, it was impossible to determine; the amount of alcohol present varied from 6·2 per cent. to 8·1 per cent. by volume, with a mean of 7·1 per cent.

Enquiries elicited the information that, in Cairo, *bouza* brewed for sale is prepared from wheaten flour, which is made into dough and slightly baked, and that, in order to induce fermentation quickly, a little old *bouza* from a previous brewing is added. It is also stated that, before the introduction of the recent Excise law having reference to alcohol, *bouza* was sometimes brewed privately from leavened wheaten bread, with the addition of a small proportion of specially prepared malted wheat to give a flavour, no ferment being used beyond that present in the bread.

The identification of the ancient Egyptian beer with modern *bouza* receives confirmation from various scene-paintings in the tombs,[5] first explained by Borchardt.[6] Thus in a VIth-dynasty tomb at Deir el-Gebrâwi,[7] in a VIth-dynasty tomb chapel at Meir,[8] and in a Middle Kingdom tomb in the Theban necropolis,[9] bread-making and brewing are associated, the former manifestly being a preliminary step towards the latter.

An XIth-dynasty wooden model of the process of brewing found at Deir el-Bahri shows the operations of corn being ground, dough being kneaded, and bread being baked, which latter is then soaked in water and used for making beer.[10] Similar models of about the same date from Beni Hasan are illustrated and described by Garstang.[11]

[1] *Travels in Nubia*, 1822, p. 201.

[2] *Op. cit.*, pp. 132–3.

[3] *Travels to Discover the Source of the Nile*, 2nd ed., 1805, p. 65.

[4] *The Manners and Customs of the Modern Egyptians*, 1860, pp. 96 and 342.

[5] P. Montet, "La Bière," *Les Scènes de la Vie Privée dans les Tombeaux Égyptiens de l'Ancien Empire*, 1925, pp. 242–54. H. F. Lutz, *Viticulture and Brewing in the Ancient Orient*, 1922.

[6] *Aeg. Zeitsch.*, 1897, p. 128.

[7] N. de G. Davies, *The Rock Tombs of Deir el-Gebrâwi*, II, 1902, p. 26, Pl. XX.

[8] A. M. Blackman, *The Rock Tombs of Meir*, IV, 1924, p. 35, Pl. XIII.

[9] N. de G. Davies and A. H. Gardiner, *The Tomb of Antefoker and his Wife Senet*, 1920, p. 15, Pls. XI, XIA.

[10] H. E. Winlock, *Bull. Egypt. Exped.*, 1918–20; *The Met. Mus. of Art, New York*, II, 1920, pp. 20 and 26.

[11] *The Burial Customs of Ancient Egypt*, 1907, pp. 63, 73–6, 86, 94 and 126–8.

Statements have been made that the ancient Egyptians used flavouring ingredients in brewing, much in the same manner as hops are employed at the present day, and that these materials included lupin, skirret (*Sium sisarum*), the root of an Abyssinian plant,[1] rue and safflower,[2] but no satisfactory evidence is given to support this, and in modern *bouza* no such flavouring substances are employed. The Abyssinians, however, in Bruce's time, added to their *bouza* the bitter leaves of a certain tree called "*ghesh.*"[3]

II.—WINE usually denotes the fermented juice of the fresh grape, and this was the principal wine of the ancient Egyptians, but in addition they had at least two other kinds—palm wine and date wine, and, according to Pliny, a further kind made from a plum termed *myxa*.[4] The three wines first mentioned may now be described; about the fourth nothing is known beyond Pliny's statement.

Grape Wine.—Wine, meaning grape wine, is frequently referred to in the ancient records,[5] the earliest reference known to the writer being of the IIIrd dynasty.[6]

Vineyard scenes are often depicted on the tomb walls[7]: thus, to take a few examples, in a Vth-dynasty tomb at Deshasheh the gathering of grapes is shown,[8] in a XIIth-dynasty tomb at El Bersheh,[9] in several tombs of the same period at Beni Hasan,[10] and in several mortuary chapels of XVIIIth-dynasty date in the Theban necropolis,[11] both the gathering and pressing of grapes are pictured.

In the XVIIIth dynasty, wine was being received by Egypt as tribute from Asia (Arvad, Zahi and Retenu)[12]; in the XXIInd and XXVIth dynasties, respectively, there are records of its being obtained from the oases of the western desert,[13] and in the XXVIth dynasty from the western Delta.[13]

Herodotus, strangely enough, says that there were no vines in Egypt,[14] though he mentions that the Egyptian priests drank wine,[15] and that wine was consumed at certain festivals,[16] but since he records the importation of wine into Egypt from Greece and Phoenicia,[17] he may have thought that all the wine used in the country was of foreign origin.

[1] J. G. Wilkinson, *The Ancient Egyptians*, I, 1890, p. 54.

[2] *Bier und Bierbereitung bei den Völkern der Urzeit*, I, *Babylonien und Egyptien*, Berlin, 1926.

[3] James Bruce, *Travels to Discover the Source of the Nile*, VII, pp. 66 and 335.

[4] *Natural History*, XIII, p. 10.

[5] J. H. Breasted, *op. cit.*, V (Index), p. 170. A. Erman, *op. cit.*

[6] J. H. Breasted, *op. cit.*, I, 173. [*See also* wine-press in the Ist dynasty, ANCIENT EGYPT, 1926, p. 15.]

[7] P. Montet, "La Culture de la Vigne et les Vendanges," *op. cit.*, 1925, pp. 265–73. H. F. Lutz, *op. cit.*, 1922.

[8] W. M. Flinders Petrie, *Deshasheh*, 1898, p. 9, Pl. XVI.

[9] P. E. Newberry, *El Bersheh*, I, p. 35, Pls. XXIV, XXVI and XXXI.

[10] Idem, *Beni Hasan*, I, 1893, p. 31, Pl. XII, and II, 1894, p. 60, Pl. XVI.

[11] N. de G. [illegible]vies, *The Tomb of Nakht at Thebes*, 1917, pp. 69 and 70, Pls. XXII, XXIII and XXVI; *The Tomb of Two Officials of Tuthmosis the Fourth*, 1923, p. 31, Pl. XXX; *Five Theban Tombs*, 1913, p. 41, Pl. XXXI; A. E. P. Weigall, *A Guide to the Antiquities of Upper Egypt*, 1910, pp. 115, 123, 139, 160 and 178.

[12] J. H Breasted, *op. cit.*, V (Index), p. 170. A. Erman, *op. cit.*

[13] J. H. Breasted, *op. cit.*, IV, 734 and 992.

[14] II, 77. [15] II, 37. [16] II, 60. [17] III, 6.

Diodorus refers to the vines of Egypt[1] and to the Pharaoh drinking wine.[2] Strabo states that Libyan wine,[3] which he says was mixed with sea-water,[4] was of poor quality, but that another Egyptian wine, the Mareotic, made in large quantity, was good.[3] He also refers to wine from an oasis in the western desert[5] and to wine from the Fayum, which latter he says was produced in abundance.[6]

Pliny, in his enumeration of wines foreign to Italy, includes a kind termed Sebennys, made in Egypt from three different varieties of grapes "of the very highest quality," namely, the Thasian grape, the "smoky" grape and the "pitchy" grape.[7] The Thasian grape, probably so called because it was introduced into Egypt from Thasos, is described as being "remarkable for its sweetness and laxative qualities."[8] Pliny also mentions an Egyptian wine that he states produced miscarriage.[8]

There is no recorded instance of wine having been discovered in an Egyptian tomb, though wine-jars and clay sealings from wine-jars are very common. A specimen of material from the bottom of a jar found by Monneret de Villard at the Monastery of St. Simeon, near Aswan, analysed by the writer, proved to be a wine residue, and in this monastery may still be seen a complete installation for making wine.[9]

Palm Wine.—A wine-producing palm is referred to in the Pyramid Texts,[10] and both Herodotus[11] and Diodorus[12] state that palm wine was used in Egypt to wash out the abdominal cavity during the process of mummification.

Wilkinson says[13] that palm wine, as made in Egypt in his day, especially in the western oases, apparently consisted of the sap of the date palm obtained by making an incision in the heart of the tree, immediately below the base of the upper branches. As taken directly from the tree, the liquid was not intoxicating; but acquired this property by fermentation when kept. He states that a palm tapped in the manner mentioned was rendered useless for fruit-bearing and generally died.

Mr. Beadnell, who knows the western oases well, having lived in Kharga, of which he has published a description,[14] informed the writer that a palm wine of the kind described by Wilkinson was still produced in Dakhla.

Enquiries recently made in Cairo elicited the information that such a wine as that described was occasionally prepared in Egypt at the present day, but always from a male tree that was not required, and that the tree died, as the result of the operation, and was cut down.

[1] I, III. [2] I, IV. [3] *Geography*, XVII, I, 14.

[4] The practice of mixing wine with sea-water is also mentioned by Pliny (XIV, 9, 10). It was done apparently to improve the flavour, and also, according to Athenaeus (I, I, 59), because it was thought that wine containing sea-water never produced headache.

[5] *Geography*, XVII, 1, 42. [6] *Ibid.*, XVII, I, 35.

[7] *Natural History*, XIV, 9. [8] *Ibid.*, XIV, 22.

[9] U. Monneret de Villard, "Un Pressoio da Vino dell' Egitto Medioevale," *Reale Istituto Lombardo di Scienze e Lettere*, LIX, XI-XV, 1926; "Discrizione Gen. del Monastero di S. Simeone presso Aswan," *Annales du Service des Antiq. de l'Égypte*, XXVI, 1926, p. 231.

[10] F. F. Bruijning, "The Tree of the Herakleopolite Nome," ANCIENT EGYPT, 1922, pp. 1–8.

[11] II, 86. [12] I, 7. [In Booth's translation it is rendered "Phoenician wine."]

[13] *The Ancient Egyptians*, 1890, I, p. 55; in note to *Herodotus*, Rawlinson's translation, II, 86.

[14] *An Egyptian Oasis*, 1909.

Bruijning suggests[1] that the palm wine used anciently was obtained, not from the date palm, but from other species of palm, such as the Raphia palm, probably *Raphia monbuttorum*, which he thinks may have grown in Egypt at one time, though it is not now found in the country. This, however, is largely conjecture.

Date Wine is mentioned in the VIth dynasty ;[2] it is also described by Pliny,[3] who states that it was made " throughout all the countries of the East," which probably was meant to include Egypt, though Egypt is not specifically named. It was prepared by steeping a certain kind of ripe date in water and pressing out the liquid. This, however, must be allowed to ferment, which it does naturally, before it becomes intoxicating, though the necessity for fermentation is not referred to by Pliny. A similar beverage is described by Burckhardt[4] as being made in Nubia by boiling ripe dates with water, straining the liquid and allowing it to ferment.

Until quite recently, a date wine such as that described was, and possibly still is, made in Egypt, but instead of being drunk it is distilled and the resulting spirit consumed. Three specimens of this spirit analysed by the writer contained 66·7, 29·6 and 49·3 per cent., respectively, of alcohol by volume, the third of the specimens being flavoured with aniseed. This date spirit, however, or any other kind of distilled spirit, cannot have been known in Egypt at any very early age, as the process of distillation was not discovered until comparatively late, and without distillation it would have been impossible to separate the alcohol present in liquids, such as beer and wine. When and where the discovery of distillation was made there is no evidence to show, but the first mention of it that can be traced is by Aristotle[5] in the fourth century B.C., who states that sweet water may be produced by evaporating salt water and condensing the steam, and that wines and other liquids can be submitted to the same process. Pliny also describes[6] two methods of distillation, both of which are very crude, from which it may reasonably be assumed that distillation in Pliny's time was still in a primitive and early stage. The first exact description of a still that can be found is by Zosimus of Alexandria, about the fourth century A.D., who gives a drawing of an alembic and receiver ; these he states were copied from an illustration in a temple at Memphis,[7] but which temple and of what date there is no record.

A. Lucas.

[1] Ancient Egypt, 1922, pp. 3 and 7.
[2] J. H. Breasted, *op. cit.*, I, 336.
[3] *Natural History*, XIII, 9 ; XIV, 19.
[4] *Op. cit.*, 1822, p. 132.
[5] *Meteorologica*, II, 11.
[6] *Natural History*, XV, 7 ; XVI, 21.
[7] Quoted in Hoeffer's *Histoire de Chimie*, 1886, I, p. 262.

CAPSIANS AND BADARIANS.

SINCE the distinguished German orientalist Dr. Scharff[1] has entered the field of West Mediterranean prehistory, to elucidate the mysteries of early Nilotic culture, it may be permissible for one who is no Egyptologist to traverse some of the arguments he has adduced. The Little African affinities of the First Predynastic culture had indeed been foreseen long ago by Petrie with his usual insight. Since then, Thomas[2] has shown that at least thirty of the signs on black-topped or white cross-lined vases recur on the walls of South-East Spanish caves, and that the featured head-dress worn by men, depicted on the same vases, is a heritage from the old Capsian culture represented in the cave-art. At the same time, the publication by Flamand[3] and Obermaier[4] of a series of rock-carvings from North-West Africa has disclosed yet more distinctly the stylistic affinities of this branch of Capsian (or Getulan) art with that of white cross-lined pottery in Egypt. In all these cases, the North African[5] and Spanish documents are either absolutely older than the Egyptian or at least definitely rooted in an ancient autochthonous tradition.

On the other hand, Dr. Scharff has adduced, as proof of a western *origin* for Early Predynastic, other types whose interpretation in this sense is doubtful. To begin with, he notes the appearance in Mauretania (and, he might have added, Spain) of tanged and concave-based arrow-heads. Now, in Egypt these go back to Badarian times, while, after all, the native Capsian arrow of all the Mediterranean coast-lands was the chisel-ended variety tipped with flint trapezes or lunates. These seem foreign to the Badarian and Fayum cultures, though both occur later in Nubia[6] at S.D. 37, if not before. We find the same type still in use by the plumed lion-hunters on the British Museum palette, and by those Minoans whose kinship with the " Libyan " elements in the First Predynastic culture is demonstrated by the block-figures and the sheath.[7] Hence the chisel-ended type was used, and used by Libyan elements in Egypt, but only after the development of the barbed or tanged varieties.

The first tanged arrow-head of Badari-Fayum type, cited by Scharff, from Mauretania, come from " dolmenic " tombs[8] whose general affinities actually lie with the graves of the Nubian C-group. In point of fact, its arrival in Africa

[1] *Grundzüge der ägyptischen Vorgeschichte* (*Morgenland* 12, 1927) and *Äg. Zeits.*, lxi, pp. 27 *ff.*

[2] *Journ. Roy. Anthrop. Inst.*, lvi (1926), pp. 385 *ff.*

[3] *Les Pierres écrites*, 1924.

[4] *Hadschra-Maktuba*, Frobenius and Obermaier, p. 192.

[5] Ostrich-shell beads, again, had long been current in the North African Capsian.

[6] *Arch. Surv., Nubia*, Report, 1907–8, pl. 62, b. 16 (grave 17, 50 ; also in grave 78 at same cemetery).

[7] Evans, *Journ. Roy. Anthrop. Inst.*, lvi (1926), pp. 216 and 219. Frankfort, *Studies*, ii, p. 97, *n.* 5.

[8] *Prah. Zeits.*, viii, pp. 1 *ff.*

Minor is a good deal older. Reygasse has found several variants in "early neolithic" deposits at Abd el-Adhim[1] in the Western Great-Erg and again at Redeye[2] in Tunisia, appearing with a little pottery as seeming intruders in a Final Capsian microlithic context where the graver still survived, while in the oasis of Négrine[3] south of Tebessa, in a late Tardenoisian context, only the lunate and the trapeze are found—types that are predominant also at Abd el-Adhim. None of these deposits are likely to be nearly as old as the lowest levels at Badari, while in Spain the tanged and mitre-form heads belong first to the relatively late phase of Los Millares.

Hence, the neolithic age begins on the Nile with types of arrow-head that are secondary further west; the true North African type first appears at a later date with the white cross-lined pottery. That suggests that, in addition to the current from the west that influenced Egypt in the First Predynastic age, we must reckon first with a counter-current reaching Mauretania after Egypt.

Other of Dr. Scharff's western parallels must be similarly explained. The tulip-shaped Badarian beaker[4] certainly has the same ancestry as the Bell-beakers of Los Millares, Palmella, and Carmona,[5] but it is quite certainly older than any of these. So the pedestalled bowl of white cross-lined ware[6] recurs near Carmona with the beakers, and survives into the Bronze Age at El-Argar. While the priority of the Badarian beakers is clear, no direct connection with the Spanish need of course be postulated, both having a basketry origin as the skeuomorphic patterns show. The ceramic technique, however, into which they were translated probably spread westward from Egypt, like the arrow-heads. How early such a spread may have begun is suggested by the early settlement at El-Garcel, in Almeria, where the globular bottle, with handles on the belly, as at Badari, appears in an early neolithic context with arms that are chisel-ended but not tanged or barbed.

The conclusion is, that there are elements in Badarian culture that are not African in the same sense as Early Predynastic is. In the latter, these elements are blended with others that are truly western; but even so, a westward current traversed North Africa and crossed the eastward drift.

V. G. CHILDE.

[1] *Rec. et Mems. Soc. Arch. Constantine*, 55 (1923–4), pp. 228 *ff.*
[2] *Ibid.*, 53 (1921–2), p. 194. [3] *Ibid.*, 52, (1919–20), p. 569. [4] Petrie, *Corpus*, N. 58.
[5] *See* Childe, *Dawn*. [6] *Corpus*, C. 40.

[Regarding the eastern origin of the Badarian people and culture, *see* the results of skull measurements in ANCIENT EGYPT, 1927, p. 106.]

THE DYING GOD.

SPEECH No. 570, in the Pyramid Texts of Pepy and Merenra, appears to point to the sacrifice of the King as a fertility victim. It begins (1443): "The face of the sky is washed, the vault of heaven shines," which at once suggests the appearance of the sky after rain. Then follows an address repeated five times, each time to a different deity—Kheprer; Nut; Atum; the Powerful One, son of Geb; the Mighty One, son of Osiris. It continues (1449): "Thou art raised up to Pepy in thy name of Ra. Thou hast removed the bareness (nakedness) of heaven. Hor-Yakhti grants that he may hear his fame and his praises from the mouth of the Double Ennead. (1450) Twice happy art thou, says his mother. (My) heir, says Osiris. Pepy, Merenra, has not eaten the Eye of Horus. Say the people, Let him die for it. P.M. has not eaten a limb of Osiris. Say the gods, Let him die for it. (1451) P.M. lives on the bread (*'isnw*) of his father Atum. Thou protectest him, O Nekhbet; thou protectest P.M., O Nekhbet who art in the *Ser*-House which is in Heliopolis. (1452) Thou hast commended him to *'imī-ḥntī-f*; P. is a *ḥntī*: *'imī-ḥntī-f* has commended him to *'imī-spꜣ-f*; P. is a *ḥntī*. (1453) P.M. has escaped his day of death as Setesh escaped his day of death; P.M. has escaped his new moons of death as Setesh escaped his new moons of death; P.M. has escaped his full moons of death as Setesh escaped his full moons of death; P.M. has escaped his year of death as Setesh escaped his year of death (1454) by ploughing the earth. The hands of P.M. raise up the sky like Shu, the bones of P.M. are of metal, his limbs are imperishable [or, 'an imperishable star']. (1455) P.M. is a star opening the waters of heaven. Mount up to P.M., O God, and let him be protected. Heaven is not dry through P.M., nor is earth dry through P.M. for ever."

Again, in Speech 571, which is peculiar to the Pepy Text, there is another and rather different statement concerning the King's death. It begins by saying that the King was begotten "before heaven and earth existed, before men existed, before the gods were born, before death existed. (1467) P. escapes his day of death as Setesh escapes his day of death. P. comes not to your *wdr*, O gods of the Abyss (1468) who perish not on account of your enemies, P. perishes not on account of his enemies; and who do not die on account of the kingship, P. does not die on account of the kingship, and who do not die on account of any death, P. does not die on account of any death, (1469) for P. is an imperishable star. O . . . of heaven. Great One who is in the *Ḥt-sḳr*, Ra has taken to

himself this P. to the sky, that P. may live even as he lives who enters into the west of heaven and comes forth from the east of heaven. *'imï-ḫntï-f* commends P. to *'imï-sp;-f*, they protect P., for P. is a star."

In this Text I have translated  as "kingship" rather than "king" on the analogy of  , which can mean either the vezirate or the vezir, either the office or the holder of the office. This translation gives a meaning to an otherwise meaningless sentence, and shows that we are dealing with a royal and divine victim. The resurrection of that victim, which was one of the main tenets of the theory of the Dying God, is then emphasized by the statement that Pepy shall live like the sun, who dies at night to rise again in the morning.

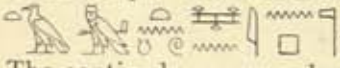
Both Texts indicate the actual or ritual sacrifice of the King, though much is obscure, owing to the corrupt state of the Text and also to insufficient knowledge, on our part, of the meaning of many of the religious ideas. In Speech 570 both mankind and the gods demand the death of the King, the reason of the demand being incomprehensible to us. The Eye of Horus is usually the equivalent of food, and the Limb of Osiris may be another synonym for the same. I therefore suggest that the meaning may be that as the King does not eat (perhaps owing to scarcity) he must die. The indication that this is a ritual death, and not an actual sacrifice, is given not only in the words "P. lives on the bread of his father Atum," but in the comparison of the escape of the King and of the god Setesh from death, the escape being apparently effected by ploughing the earth. The time of the sacrifice is indicated as being at a moon-period, the new or the full; the indication of the year is not given, but it was presumably after a limit of time. Here we are helped by the tradition concerning Mykerinos, whose length of life was limited by the priests of Buto to seven years. The use of the number seven suggests a lunar reckoning being in use, with divisions by seven; just as in later times the lunar amulet of the Sacred Eye is represented by multiples of four and seven. It is worth noting that the two lunar festivals of the month and the half-month (new and full moon) are also prominent among the dates on which the dead were commemorated.

In both Texts the King is called a star, but in Speech 570 the idea is developed rather further. The phrase is usually translated, "P.M. is a star, illuminating the earth." The determinative in the Text is, however, different and is of a man casting,  , which has no connection with light or illumination; it is usually said to represent the action of sowing, the dots being taken as seeds, or even grains of natron. The dots, however, are like those on the sealings of Mersekha and Udy-mu (*Royal Tombs*, I, Pl. XXVIII, 72; II, Pl. XIX, 140) and on the painted inscription (*R.T.*, II, Pl. XII, 1), where there is no doubt that they indicate water; the figure also, in the sealing of Udy-mu, has the arms in the position of our determinative. In the Ist-dynasty examples, the figure swims above a  sign; in the VIth dynasty, the figure, abbreviated after the fashion of the period, is distinct from the . The combination is, however, too close to be ignored. I therefore prefer to regard the signs  as two words, *wp* and *š*, "to open the water."[1] This would, then, refer to Sothis

[1] For this reading, compare also Newberry, ANCIENT EGYPT, 1914, pp. 151–2.

heralding the inundation.[1] The translation "P.M. is a star opening the waters of heaven" would thus contain a reference to the rain-making powers of the King. This reading appears to be borne out by the sentence which follows on almost at once: "Through P.M. the sky is not dry, through P.M. the earth is not dry for ever."

The epithet, "He who is in his *ḥntī*," is not explained, though in both Texts P. is said to be a *ḥntī*. I suggest that this word is from  , *ḥnt* (limit). Thus *'imī-ḥntī-f* would mean, "He who is within his two limits," and the epithet, when applied to Pepy, would be "He who is limited." The only limits which could apply here are the limits of birth and death, and the man who was "limited" would be one whose limits of life were set. Nekhebt of El-Kab, equated by the Greeks with their goddess of childbirth, is the deity who commends the King to *'imī-ḥntī-f*. There is no indication as to who this personage was, but here I should like to make another suggestion. In the birth-scenes of Hatshepsut, Anubis is represented holding a circle. The presence of the god of death in connection with birth is inexplicable, unless we accept the object, which he holds, as the ὁρίζο τοῦ κύκλον, in the Greek sense of the words, "the limit of the circle." "He who is within his two limits" might well be Anubis, who, as god of death, sets the term of the royal life; and it is to the god of death that the birth-goddess commends the King whose limit is fixed.

The *'imī-spꜣ-f* means "He who is in his throne"; the throne being, as Kees points out (*A.Z.*, LVIII, p. 83), the carrying-litter peculiar to the King of Upper Egypt. An interesting point is that the word *spꜣ* is determined not only with the throne on the emblem of female divinities, but with the centipede, which was itself divine. Perhaps as a creature which lives in the earth it was connected with the chthonic god Osiris; certainly Osiris-Sepa is a fairly common epithet of the god. In this connection Kees also notes that the road which led from Gizeh through Babylon to Heliopolis was named "the Road of *Spꜣ*," and was under the protection of the Spꜣ. The road was also called  , "The Road of Anubis" (*Brugsch. Dict. Geog.*, 1108). The centipede as an underground creature would be associated with death; and it is significant that the road, along which the funeral processions of the Memphite Pharaohs went from the temple to the burial-place, was called by the name of both the centipede and the god of death.

The position of Setesh (Sutekh, Set) in our Text is one to which we are not accustomed. So far from being the Principle of Evil, as he appeared to Greek eyes, he is here the sacrificial victim, who was originally put to death, and whose escape from that fate is held up as an example followed by the divine King. Setesh was, according to Egyptian tradition, the god of the barren south in contradistinction to Horus, the god of the fertile north. It is probable that in the south a victim for the benefit of the crops would be considered more necessary than in the north where the harvests were more plentiful and less precarious. Osiris was a northern god, and the sacrifice of Osiris would be in

[1] The use of stars as heralds of rain, and consequent agricultural operations, was superseded by saints in Christian times; thus in Malta at the present day, Christ is said to give the keys of Heaven to St. Bartholomew on August 24th, that he may open the gates and let down the rain. There is generally a shower on that day or the next, and the black clouds which gather are said to show that the saint is oiling his keys in order to obey the Lord's command.

the north, while in the south the fertility victim was Setesh or his human representative a red-haired man. As the cult of Osiris gained ground by the southward migration of the northerners, Setesh became the great enemy; the tribal battles between the Setesh-people of the south and the Horus-people of the north were translated as the battles of the avenging son of Osiris against the murderer of his father. When this theory became established, it is very noticeable that the greater and more noble Osiris became, the worse and more malignant became Setesh. His career is that of many gods, who begin in glory and triumph and end as the devil. Bright-haired Apollo, glorious god of light, slew the Python, his predecessor in the godhead, but sank in the end into Apollyon, king and leader of the foul brood of locust-spirits who issued from the smoke of the bottomless pit. Osiris, the Good Being who died for his people, becomes, under Christian influence, ΠΕΤΟ ΝΕΤΙΒΟΤΛΟΣ ΑΥΩ ΠΙΑΒΟΤΡΟΣ ΠΑΙΑΒΟΛΟΣ ΧΙΝΤΩ ΣΟΤΕΙΤΩ, "the Counsellor and the Villain, the Devil from the beginning." *Sic transit gloria dei!*

M. A. Murray.

THE INTRODUCTION OF CHRISTIANITY IN THE RHINELAND.

THIS article is largely an amplification of a review which appeared in ANCIENT EGYPT, 1927, Part II, of a recent publication by W. Neuss. The interest of the illustrations may, it is hoped, make up for some repetition in the accompanying letterpress.

The treasury of Cologne Cathedral preserves the upper portion of a staff called the "Staff of St. Peter." The legend connected with this staff relates that St. Peter himself sent three brave missionaries, Eucharius, Maternus, and Valerius, to convert the North. After crossing the Alps, Maternus died, but was restored to life after forty days by the touch of St. Peter's staff, which St. Eucharius had meanwhile fetched from Rome. It is, however, well to turn from delightful legends such as this to the evidence of objects found in graves, though the legend is interesting, if for no other reason than the following: It shows that the origins of Christianity in the Rhineland are as much wrapped in story as the beginnings of Christianity in Britain. I hope to emphasize a further similarity, namely, the Eastern origin of Rhineland Christianity.[1]

After this miraculous return to life, St. Maternus became, it is said, the first Bishop of Cologne. One of the earliest historical Rhineland bishops was, indeed, called Maternus, for Maternus of Cologne and Agroecius of Trèves attended the First Council of Arles summoned by Constantine in A.D. 314. Here, then, is a definite date to set against the vaguer datings which archaeologists can give to finds.

[1] For the Egyptian origin of Christianity introduced into Glastonbury, *see* ANCIENT EGYPT 1916, Parts I and II, and for the entry of Oriental influences into England, *see* Strzygowski, *Origin of Christian Church Art*, translated by Dalton and Braunholtz, from which I quote the following passage:—

> "More than once we have found traces suggesting a connection with Antioch. I refer especially to monastic types reaching Ireland from the Eastern Mediterranean by the usual maritime routes followed by trade and colonisation. These types were developing in Ireland during the decisive years when the Anglo-Saxons were conquering England, and were preserved by a national Church throughout the two centuries when Teutonic paganism established itself in that country. Does any other hypothesis explain the fact that the Roman mission of St. Augustine and his successors was promptly confronted with a formidable resistance, formidable because it was offered, not by paganism, but by an advanced culture of East Christian origin? Does any other hypothesis explain the appearance on the Continent of Irish monks as teachers of Greek in the reign of Charles the Great? How, if we reject it, are we to account for the Gospels of Lindisfarne produced on that English Iona half a century after the foundation of its monastery in A.D. 632?"

The earliest Christian objects all point clearly in one direction : Christianity was introduced into the Rhineland by the Oriental merchants and craftsmen who brought the manufacture of glass to this district along the route of trade, culture, and Roman dominion by river from Lyons. The earliest glass definitely shows Oriental influence. There has been some difference of opinion as to the use of these early finds (plaques, spoons, bowls, etc.) ; they would seem to have been gifts between friends, precious objects owned and prized by wealthy people, and buried with them. The legends borne by some of them point to this conclusion, and argue against a religious use (*e.g.* " May the hand of Martinian flourish," on a mount from the coffin of St. Paulinus). (Fig. 1.)

Fig. 1.—Silver Plate, Coffin of St. Paulinus.

Most instructive of all is one of the " gilded glasses " which was found in 1866 near St. Ursula's, Cologne ; it is now in the British Museum. (Fig. 2.) Most of its centre is missing, but from the remaining letters EO DULCI may be restored the words [VIVAS IN D]EO DULCI [S], which would have been preceded by the name of the recipient. By analogy, the centre may be further restored by a group of the Good Shepherd carrying a lamb thrown across His shoulders, and a tree at either side indicating Paradise.

The scenes round the border are as follows (placed in reversed order) :— (1) Jonah swallowed by the whale ; (2) Jonah cast up ; (3) Daniel in the lions' den ; (4) the Three Children of Babylon in the fiery furnace ; (5) the healing of the young man born blind ; (6) a scene usually called the Widow of Nain, but, according to Neuss, really St. Thecla—a woman praying, with a bull and a wall on one side, the other side damaged ; (7) the healing of the paralytic, and (8) the dream of Ezekiel.

Scenes (3), (4), (6) and (8) show the influence of Egyptian or Oriental art, rather than Roman, in the following respects :—In (3), Daniel is clothed, as in Egyptian and North African representations ; moreover, he is standing between *four* lions, not two. In (4), the Three Children are naked, not " in their coats, their hosen, and their hats, and their other garments " (Dan. iii, 21). In the dream of Ezekiel (8), limbs only, and not entire corpses, are being touched by the staff ; the scene closely resembles in realism the oldest preserved Syrian example, a miniature of the 7th or 8th century. The scene of the woman praying and the bull (6) is, however, the most remarkable of all. It was formerly supposed to represent Susanna and the Elders, on the analogy of a fresco at Rome, where the legend accompanying a lamb between two wolves is Susanna Seniores. Neuss, however, would show that the subject is St. Thecla. Susanna is always dressed as a matron, while this figure is clad in a different garment ; her arms are bare, and she has no veil. The story of St. Thecla is known from the *Acta Pauli et Theclae*, which date from about the end of the 2nd century.

She was suspected of being a Christian and persecuted accordingly, with the following miraculous results :—The flames of her pyre were extinguished by rain ; at Antioch she was exposed to wild beasts, then fastened to a bull, and finally thrown into a pit of serpents, but she was delivered from all these perils. For these ordeals she was only allowed a loin-cloth, until the pro-consul was persuaded to grant her a garment—*procedit in bestario* (she enters in the arena-garment) is said of her in a so-called *Cento* which was probably composed in Southern Gaul in the 5th century. It is this garment which she seems to be wearing in the scene on the Cologne glass.

With the exception of St. Thecla, the themes represented above are among the earliest depicted in Christian art, and the inclusion of this apocryphal saint among the miracles of redemption is not as surprising as it seems at first sight. All the Old Testament themes on the glass belong to a definite series of Jewish prayers which, in association with complementary themes from the New Testament, were included in the *Commendatio animae* (death-bed prayers of the Roman Catholic Church). In these, St. Thecla is among the saints invoked. And, though it is true that her inclusion dates from the 16th century only, when the Breviary was reformed, yet—and this point is important—it was taken from the Gallic use. The *Acta Pauli et Theclae* were declared apocryphal immediately after their appearance, and the cult of St. Thecla was, accordingly, rejected at Rome and in Latin North Africa. In the East, in Egypt, and in Gaul, which was strongly under Oriental influence, her cult was, however, firmly retained. If the identity of the female figure in this scene be accepted, this would be the earliest representation of the saint. Next in date would come the terra-cotta pilgrims' flasks (*ampullae*) of the 4th century, the majority of which are from Egypt. In them the pilgrims carried away oil used for the lamps which were kept burning before the shrine of St. Menas, or water from his sacred spring. This shrine was one of the most popular places of pilgrimage in early Christian times. Several of the flasks show St. Menas on one side in the customary way, between two camels. The allusion is to a legend according to which the saint's body was placed on a camel which was let loose to follow what course it would ; the grave and, afterwards, the shrine were built at the place where the camel stopped. The reverse of some of these flasks is occupied by a female figure bound to a post. The upper part of her body is naked ; on her right is a lion, on her left a bear, and at either side, half-way up, a bull.

Another glass, found near Cologne in 1907, is preserved in the Wallraf-Richartz Museum there. It resembles the British Museum example in the incidents from the Story of Jonah, and in Daniel being clothed. A further divergence from Roman iconography is observable in the representation of Noah. Wherever Noah occurs in the Catacombs, he is depicted as standing and praying in the Ark, with the dove flying toward him, olive-branch in beak. The Ark is always shown as a gold chest. The scene in this instance has realistic additions in the shape of a dead ox floating in the water below the Ark, while another bird, a raven, is approaching the body. The Ashburnham Pentateuch, now in the National Library, Paris, also shows dead animals and corpses in the water. In an earlier treatise, Neuss showed that this MS. was written in Spain in the 7th century, and was based on ancient Christian traditions derived from North Africa. Equally realistic, and different from the traditional representation of this subject, is the treatment of Noah and his family on a red sandstone

FIG. 2.—GOLD IN GLASS BOWL. BRITISH MUSEUM.

FIG. 3.—NOAH AND FAMILY ON SARCOPHAGUS FROM TRÈVES.

sarcophagus found at Trèves, and now in the Provincial Museum there (Fig. 3). On this sarcophagus the occupants of the Ark are increased according to Gen. vii, 7 *ff.*: "And Noah went in, and his sons, and his wife, and his sons' wives with him . . . the male and the female, as God had commanded Noah." Here again is the raven. This seems to belong to a series of ideas derived from the Orient, and peculiar to the art of the southern and western confines of the Roman Empire.

These Cologne glasses clearly indicate Oriental ideas derived from Gaul. They must have been the property of Oriental merchants who came to the Rhineland, following the river routes up the Rhône and Saône and down the Moselle and Meuse. Their date can hardly be later than the early part of the 4th century. In this connection we may recall the statement of Eucherius (*d.* 450 A.D.), to the effect that Egyptian monks settled in Gaul. The subjects and treatment on glasses found in late 4th-century graves are very different, and show closer connection with Rome. There is constant fascination in amplifying and vivifying archaeological remains with the help of written records, and the early 4th century becomes more defined if we imagine these objects to have been made for the followers of Maternus, the first historical bishop of Cologne.

The silver mount on the cedar-wood coffin of St. Paulinus (Fig. 1) is of historical interest, serving to date similar mounts in bronze from the Rhineland and Northern France, which were applied to little caskets containing offerings for the dead. The nakedness of Lazarus and the realistic treatment of the caskets is different from Roman art. St. Paulinus attended the Second Synod of Arles, A.D. 353, where his ardent opposition to Arianism caused him to run counter to the views of the Emperor Constantius II, who exiled him to Phrygia where he died. His body, however, was restored to Trèves, and buried in a cedar-wood coffin, enriched with these precious plaques.

In conclusion, we recall the fact that the origin of Christianity in the Rhineland is tantamount to the origin of Christianity in Germany. The Romans never succeeded in establishing themselves east of the Rhine, and the defeat of their legions by Arminius in A.D. 9 was the death-blow to this hope. The Provincial Museum at Bonn preserves the soul-stirring contemporary memorial stone of a Roman officer who fell, under Varus, in a fight "which forms part of our own national history."[1] The spirit of modern days has, however, preferred a more readily seen and more colossal monument to the victor, who was "far more truly one of our own national heroes than Caractacus," for "had Arminius been unsuccessful this island would never have borne the name of England."[1] After temporary stagnation consequent upon the final collapse of the Roman Empire, Christianity revived in the Rhineland, with the conversion of Clovis (A.D. 481–511), but the rest of Germany remained pagan until a much later date. Charlemagne brought Christianity to the Saxons by fire and sword, himself standing sponsor when Wittekind, the most obdurate of the Saxon chieftains, finally bowed his head at the font. While St. Willibrord (A.D. 657–739) set out from Yorkshire to preach the Gospel to the Frisians, St. Boniface of Kent became the "Apostle of the Germans"—he felled Thor's Oak in Hesse in A.D. 721—and sent his fellow-countrymen, St. Walpurga and her brothers, to found religious houses in Bavaria.

L. B. Ellis.

[1] Creasy, *Fifteen Decisive Battles of the World.*

REFRESHING IN THE UNDERWORLD.

THE sculpture of Wersu and his wife found at Koptos, and discussed by Professor Griffith in *J.E.A.*, 1915, has been acquired by the Folkwang Museum at Essen. It was bought off a barge on the Nile, was next in private hands in England, and finally, through a Paris dealer, reached this Museum. It bears a curse which, it will be remembered, contains the terrible threat, "he shall not receive water in the Underworld," and the prayer for offerings includes a petition for "water at the drinking-place of the river." Doubtless the post of "overseer of the mountain-lands of gold of Amon" was an especially thirsty one, though, in any case, not to receive water must indeed have been a fearful fate to any member of a race whose minds were constantly occupied with problems of irrigation. In this connection it is of particular interest to recall Cumont's remarks on the echo of an Egyptian idea in our use of the word "refreshment." Cool water to the Egyptians was symbolical of the source of life which gave the thirsty soul immortality, so much so that the Latin *refrigerium* came to mean "refreshment—blessedness." In this sense the expression passed into the Church liturgy, and prayers are still offered for the refreshment of the departed in Paradise. "Let thy hand guide me to a place of refreshment," was the last prayer of Abbot Aredius.[1]

In the same way, the ancient idea of undisturbed rest in the tomb ("house of eternity" in Egyptian) survives in the phrase *domus aeternus*, though we no longer regard the grave as a place of eternal rest any more than we believe in the necessity for cool water or for other amenities of this world in the next.

L. B. ELLIS.

[1] G. T. Vit. Ared. c. 33 (Migne, LXXI, p. 1138), from Dill, *Roman Society in Gaul in the Merovingian Age*.

REVIEWS.

A History of Egypt under the Ptolemaic Dynasty. By EDWYN BEVAN. 8vo. 393 pp., 62 figs. 1927. (Methuen.) 15s.

The rapid growth of our knowledge of the Ptolemaic period from contemporary papyri has surpassed the history written by Mahaffy twenty-eight years ago, which was revised half-way to the present time. Dr. Bevan judged it better to rewrite the subject altogether rather than patch the previous work, and he has spared no pains in making accessible the innumerable fragmentary sources, and discussing their implications. Finality in such a flow of material is not to be expected, but the present summing up may well hold the field till another generation, and stand as the most complete text-book for students, and a readable general history of this complicated period.

To begin with, there is the tale of the restless transitions, first from Persian rule to the power of Alexander, then of the agonies of the struggle among the Macedonian marshals, and of the settlement, at last, of a stable order under Ptolemy Soter. After that, more than a quarter of the book describes the organization of the country and the bureaucracy; the latter half of the book then deals with the gradual decadence of the rulers until their fall into the clutches of Rome.

The main subject of political struggle was the rival claims of Egypt and of Syria to the possession of Palestine; whichever was the stronger always advanced over the debated space between Pelusium and the Lebanon, the lure being the control of the Phoenician shipping at Tyre and Sidon which turned the balance of naval power in the Mediterranean. In the latter days, before Rome seized the land, the internal discords in the Ptolemaic and Seleucid families so weakened both parties that it was possible for the Maccabeans to rise to independence.

The subject of the relation of the old organization to that of Greek rule is scarcely touched; but when we see the permanence of so much in the conditions, it seems probable that the continuance should be presumed, except where it is clearly ruled out. For instance, the king acting as judge, and appeal to a royal court of justice, was new; the Pharaohs were legislators, but carefully abstained from usurping the function of hearing and judging cases. On the other hand, the system of a claimant running from one office to another in a complex bureau, as his own messenger, which Dr. Bevan considers strange, is still the custom—as probably it ever was. At the present day, to buy an official map, which is done at one counter in England, takes nearly an hour of visiting half a dozen offices, carrying papers and orders from one to another, in order to maintain a check on corruption.

It may be noted that the Thracian god Heron was not only established in the Fayum (p. 114), but also on the eastern border at Heroopolis or Pithom. The head on the copper coins is not that of Serapis, but of Zeus Ammon, as shown by the horn (p. 92). The settlement of Jews in Middle Egypt was in the 7th century B.C., naming Taharqa, not only in the 5th (p. 112). There are a few slight misprints, and the block, Fig. 44, is turned with the top to the left side. Such trifles can easily be rectified, and all students will thank Dr. Bevan for his guidance through a tangled history and for the full account of all the scattered sources on which it depends.

Israel among the Nations. By NORMAN H. BAYNES. 8vo. 327 pp. 1927. (Student Christian Movement.) 5*s*.

It is refreshing to meet with a sane book on the history of Israel, free from the usual perversity of critics. The Germanic custom of distrusting early literature and tradition, which has reigned from Niebuhr to Cheyne, was fostered by the academic habit of disputation, and the *advocatus diaboli*, inherited from the Middle Ages ; this made the rule of denial to be the road to success. In the last two generations, however, Homer has come into his own again ; through the Mykenaean discoveries, the early history and traditions of Rome are now seen to be in harmony with the evidence of migrations, and of cemeteries, and the opening of cities in Palestine has substantiated the history in the Old Testament. The recent clearance in six cities on the site of Gerar has given proof of the abundance of gold solely at the time of Gideon and the Midianite war, the common use of iron even before the time of Jabin's iron chariots, and the multitude of flint sickles when Isaac was reaping a hundredfold in that region.

The first half of the book is a continuous narrative of the relations of Israel with Egypt, Canaan, Assyria, Persia and Greece. The second half is occupied with bibliography, and very full notes of various views on disputed matters. This full documentation is of much value for any one wishing to read up the details on any point. As a whole, it gives a depressing view of the incessant contradictions between various critics, and shows the urgent need of first-hand material evidence from work on the sites, to control the gratuitous fancies which pass for criticism. The date of the Exodus and of Joshua is placed here in accord with Egyptian conditions, but the importance of recent discoveries, bearing on the origin of the historical record, is not noticed. Joshua is recorded to have conquered Galilee, without any mention of the Philistines, yet by the time of Saul they were at the key position of Beth-Shan, so the book of Joshua was written before the conditions of the monarchy were currently accepted. Further, the entry into Palestine must be after the campaign of Ramessu III, as the Egyptians were in occupation of Beth-Shan and its surroundings till then. Again, Shishak's list of towns captured, which has been condemned as a mere copy of an earlier list, is now confirmed by his inscription found as far north as Megiddo. Thus, Mr. Baynes' position of accrediting the records, unless directly disproved, is more than justified by recent results of tangible evidence.

In one point Mr. Baynes appears to depart needlessly from the account in Genesis, in bringing the date of Abraham down to 1500 B.C., contrary to the results of Albright's examination of the sudden fall of the Bronze Age cities near the Dead Sea about 1900 B.C. (ANCIENT EGYPT, 1926, p. 120). The long ages attributed to the Patriarchs seem to preserve a true chronology, rather

than the number of generations. The case is as if a modern person, who knew history by report rather than by books, would naturally describe Louis XIV, XV and XVI as successive generations, and lengthen out the individual history to fill the time, or place George II and III next to each other in descent, forgetting "Fred, who was alive and is dead." So the reckoning of time is more likely to be preserved than the memory of obscure links in a pedigree. Another strong inducement to lengthen the reckoning of individual generations was the female headship of the clan which lasted from adolescence to death. It was not till Sarah was dead that Isaac married a fresh regent of the clan, and brought her into his mother Sarah's tent and rights; also this heirship could only descend through the legitimate female head, who could not be married till the death of her predecessor. Thus the reckoning and descent through the female regents would be on a far longer scale than ordinary male generations.

Ueber die Wasser- und Baumnatur des Osiris. Mit Heranziehung folkloristischer Parallelen. By I. FRANK-KAMENTZKI. (Archiv für Religionswissenschaft, XXIV, heft 3–4.)

In this essay, two Caucasian popular tales of the present day are in particular brought to our notice for comparison with Plutarch's narrative of the Osiris myth, and they deserve retelling in some detail in order that the material upon which the writer bases his argument may be rightly indicated. Frank-Kamentzki is of opinion that the distinction often made by Egyptologists between divinities local and divinities cosmological, sound enough maybe in dealing with the historical period, must not be taken for granted as holding good for prehistoric times. Indeed, judging from cases such as that of Thoth or Mut, cosmological qualities would appear to have been inherent, in these local deities at least, from the very beginning.

Osiris, again, is not merely the local god of Busiris, he is god of vegetation, he is water-god, he is god of the Underworld. How far the cosmological conception of him is retained in Plutarch it is difficult to estimate, for this is a literary form of the primitive material carried out on a cultural level far higher than that on which the myth originally developed; and it must not be forgotten that later non-popular versions had usually some ulterior motive behind them which warped and distorted the stories at the will of aetiology. In this way could the animistic tree-spirit, sighing from its prison in the cedar of Lebanon, become the coffined god round which there grew up a tamarisk-shrub, an episode artificial and unconvincing of itself which otherwise does its hard-put manufacturers small credit.

In both tales quoted by Frank-Kamentzki, the part of Osiris is played by a woman; but this external difference is amply compensated for by the greater verisimilitude and smoothness of the narrative in the former, suggesting that the male actor is here of later origin. The first tells of a maiden who, to escape her father, persuades him to have a new house built, and then bribes the workmen to hollow the central column and give it a secret door. Here concealed, she thinks to evade him, and he, unable to find her, has the house pulled down and the timber thrown into the water. All this transpires and, like Osiris, she is carried to a foreign land where the column is found by the king's son washed ashore, and is set up in his new bedchamber. Then follows a non-Osirian episode, in which the maiden comes forth by night, wakens the sleeping prince with a

kiss, and ere long becomes his wife. The golden-haired boy born to them, however, and the charge of child-murder later brought against the mother, are reminiscent of Plutarch and Diodorus, whilst these seeming counterparts of Isis and Horus are reinstated or resuscitated by the kindly intervention of the biblical heaven-sent raven and dove.

It is a peasant's daughter of whom we hear in the second tale, flying before the dagger of her father; for the harvest has been bad and he has heard that he will get good crops again if he buries her dead body in his field. Pursued till they come to a river with a tree growing on the brink, the maiden hides herself so successfully in the foliage that the peasant gives up the chase, and doubtless offers some substitute for his refractory daughter by means of which to improve the crops; for he appears no more to disturb her peace. The king of the land out hunting lies down to rest beneath the tree and, seeing the maiden, would make her his queen; but while he is away fetching her fine clothes from the palace, another maid, cunning but hideous to behold, pushes her into the water, takes her place in the tree and dupes the king into marrying her. When the real bride fell into the river, however, she had turned into a mermaid, so the king has her fished out and put in a vessel in the palace. Thereupon the queen has her killed; but from her remains springs up a miraculous tree, withering or flourishing with the absence or presence of the king. So it is hewn down. A spindle then found in the splinters turns into the rightful bride, and the cycle of transformations being thus complete, it is to be hoped she comes into her own at last.

Here we have the fusion of the dryad with the naiad in one and the same character; the maiden's tree-nature is shown first by her self-concealment in the tree, and then again later when she actually becomes a tree, and because of her water-nature she becomes a mermaid when she falls into the river. And does she not further stand for the powers of vegetation? for was it not her body that was to have ensured the fertilisation of the fields? Both tales hinge on the immersion and emergence of the main actor in water, the second theme of which is obviously the older. Man's developing curiosity, however, demanded an explanation as to how the divinity that arose from the great deep came to be there, to arise. *Hinc illae lachrymae!* Osiris the god voyages on the deep, sharing the experience of the gods of many a cosmogony and of the heroes and heroines of many a legend; yet Sargon, Moses, Danae and Perseus, Aphrodite, and the two maidens of our Georgian folk-lorists are none of them drowned, and Seth's precautions to keep the water out (if indeed Plutarch anywhere refers to the covering of the chest with pitch as Frank-Kamentzki states) suggest that he feared Osiris was still alive. In other words, casting his enemy into the water might have none other effect than to transform him into a water-being.

Reference has already been made to the original tree-nature of Osiris if with Seth we interpret the "*wailing*" of the "*cedar*" as the wailing of the god concealed therein, to which conception the etymological connection between the two words in Egyptian lends every support. Thus Plutarch here preserves to us an older thought than that to be found in the Osiris corn-mummies, which belong to agricultural men, just as tree-worship belongs to his evolutionary predecessor of the primeval forest.

We look with interest for further research in this direction by comparative mythologists, who must have much light to throw upon the inner meaning of myth and custom, if the co-relation of some half-dozen chapters of the De Iside

and two living tales from a single region can reveal so much, and can suggest the fact not only that they derive from a common origin, but that the modern versions are more nearly allied to the primitive ancestor from which they sprang. Folk-lore may thus be able to give us help, when history, archaeology and philology without it shall have been unable to provide the full solution to the object of our questionings.

L. M. W.

Vie de Petosiris. By ÉMILE SUYS. 8vo. 156 pp., 6 pls. 1927. (Fondation Égyptologique, Bruxelles.)

This is a popular summary of the important Perso-Ptolemaic tomb of the High Priest of Hermopolis, whose striking theological and ethical declarations have been noted in this Journal (1921, pp. 82, 85; 1922, pp. 83, 85, 87; 1925, p. 120). The full description of the tomb has been published in three volumes of the Service des Antiquités, and the present is a summary of the matters of general interest. The history of the worship of Thoth, and the effect of the Ethiopian and Persian conquests is outlined. The well-known customs and beliefs are recounted, and the ruin of the temple by invasion. The pious rebuilding by Petosiris, and the preparation of his tomb, and ceremonies of burial, fill other chapters. The daily occupations in the next world are described. The last chapter notices the pious inscriptions which are of striking importance. The account will interest the reader who is not already familiar with Egyptian thought and habits; but those who know somewhat already, would have welcomed a more systematic account describing the tomb and the scenes as compared with similar works that are known. The most original feature is the frequency of children and infants represented in the procession of produce, some riding on the shoulders, others kissed, others running by their mothers. It joins the domesticity of the Egyptian with the activity of Greek art.

Schiffahrt und Handelsverkehr der Östlichen Mittelmeeres im 3 u. 2 Jahrtausend v. Chr. By AUGUST KÖSTER. 384 pp., 4 pls. (Beihefte zum Alten Orient, 1924, Heft I.)

Dr. Köster argues that the Phoenicians as traders and seafarers appear late in history. He points out that their chief wealth in early times was not from the sea, but from the timber which was exported to other countries, notably Egypt; and he notes that even at the present day the coastwise Syrians do not live, as might be expected, on fish, but are agriculturists. Dr. Köster devotes several pages to proving that the keelless boat of the Egyptian sculptures was seaworthy and that it was frapped. He thinks that boats so made could fare easily from Egypt along the coast of Syria in summer weather, either under sail or propelled by oars. He, however, omits to notice, in support of his theory, that though the prehistoric Egyptian boats are always represented with oars, there is often in the field of the vase the representation of a mat-sail. He is strongly of opinion that the Aegean and Egyptian peoples were sea-traders earlier than the Syrians, for, as is well known, Cretan objects of an early period are found in Egypt and Egyptian objects are found in Crete. Ancient Babylonian objects (*Kulturgut*) are found in the Aegean islands brought by an unknown trade-route, the evidence suggesting that it was not through Phoenicia. It is possible that the part played by Troy as a world-mart has not been fully appre-

ciated. The Egyptian records first show the maritime activities of the Phoenicians in the reign of Thothmes III, and it was in the last quarter of the second millennium that Phoenician trade really developed, and the Phoenicians became the chief traders of the ancient world. As regards the Aegean traders, their boats were keeled, being always built for use in the open sea. The small inter-island traffic was conducted, as it still is, by little open sailing-boats, but the big trading-vessels certainly went as far as Egypt. The Aegean trade consisted at first probably of raw materials, and later of manufactured goods. In early times the system of barter must have been used ; but when Crete held the carrying trade she appears to have invented a medium of exchange in the form of weights or ingots of gold or copper. These are found not only among the islands but also at Mykenae, in Sardinia, and in Dalmatia ; and in the tomb of Rekhmara representations of such ingots are shown among the gifts brought by the Cretans to the court of Thothmes III.

M. A. M.

La mise à mort du dieu en Égypte. By A. MORET. Sm. 4to. 57 pp., 18 figs. 1927. (Geuthner.) 15 frs.

This essay was delivered as the Frazer lecture at Oxford in 1926. It opens with the animal view of primitive civilisation, the need of maintaining life to the individual and his descendants, and the performance of magic to ensure that end by acting on the course of nature. The next stage is to slay a god to obtain the benefit of his powers. The magic is considered for the end of commanding Nature, and for bringing the inundation. The commanding of the Nile took place at Silsileh ; the images of the Nile and the large offerings are named ; the bride of the Nile is described. Unfortunately the writing of the essay just preceded the identification of the figures of Nile ceremonies, analysed in " The Royal Magician " (ANCIENT EGYPT, 1925, p. 65).

The death of the gods is proved by the body of Atmu at Heliopolis, of Anhur at Thinis, of Osiris at Mendes ; the sky god, the elder Horus, was cut in pieces ; and Set was killed after his cutting up of Osiris. All of these were reborn, and thus continued their existence of power. This cycle of divine life was then performed as a mystery-play, in order to ensure the benefits to the country.

The passion of Osiris is thus an emblem of the harvest, the threshing, the sowing and the rebirth of the corn. After figuring the scene of offering first-fruits and the harvest, there comes the harvest-scene of dragging the *stat*, a tall mass, bandaged, and crowned with feathers. This is taken by Professor Moret as a model granary. It was the tears of Isis, on the death of the corn-god, which produced the inundation. Statuettes of Osiris were made, fertilised by water, and buried in the ground to ensure its fertility ; also the well-known linen sheet, with a large figure of Osiris upon it, was covered with corn kept moist till it germinated.

The same ideas were held about the gods. Apis was killed and eaten, while the bones were embalmed. Men were sacrificed, especially those with red hair, and, after burning them, the ashes were scattered like winnowing corn. The king was even deposed if the crops failed, as he was an ineffectual magician. In Ethiopia the king was put to death by the priests when they decreed the necessity, as in Fashoda in modern times. The Sed festival is quoted as a ceremonial death of the king, after which he renewed his birth. An appendix

follows on the plaited corn in the straw, here called the " corn maiden," which is supposed to be represented in two scenes of the XVIIIth dynasty. Certainly such figures are plaited now and hung up as charms, both in Egypt and Cyprus.

The Fellahin of Upper Egypt. By WINIFRED S. BLACKMAN. 8vo. 331 pp., 186 figs. 1927. (Harrap.) 15*s*.

Various women have given some account of residence among the Egyptians. Signora Belzoni described an adventurous life. Mrs. Poole travelled and resided with her well-known brother, E. W. Lane, and described the life of Cairene women. But the intimate life of the fellahin had scarcely been touched, and it is well, therefore, that Miss Blackman has lived for some seasons among the people to collect their beliefs and practices, which are only accessible by gaining personal confidence. The subjects studied were the village life, customs from birth to death, fights, industries, agriculture, magic and spirits, holy and unholy, festivals and story-telling. A subject of archaeological interest is the pottery, and the different methods of work are fully described. The prehistoric working with one hand inside the pot seems extinct, and the methods are more like those of historic times in combining handwork with wheelwork, also the use of a retaining-cord around large vessels, common in the XVIIIth dynasty. The account of the beliefs in magicians and holy men is good, for understanding not only the mind of the Egyptian but also the scope of early thought. The power of hallucination, in calling up the vision of a person (p. 193) is also to be studied in the apparent use of red-hot iron which leaves no burn on the face, although well-educated Englishmen may believe that they see it used. We might note various other beliefs not yet collected, such as Baduh, the genius of the post, written in numerical values, 2, 4, 6, 8, upon letters, in order to propitiate it; the prayer on seeing the new moon, evident moon worship; the cleansing of the site of a sudden death by driving in iron nails and pouring out lentil soup a month later; the fumigation of women at a station by turning on engine-steam; the procession of the bridal sheet; and the drinking of water before statues in the Museum, to the fury of de Morgan when he understood it. By oversight, the drawing of a house section by Mackay (p. 281) is not acknowledged to ANCIENT EGYPT, 1916, p. 170. This book will certainly be a store for tracing beliefs, and getting an insight of the native mind which explains the past. There is yet far more to be done, especially in the fitting together of past and present, which are so much alike in Egypt.

Handbook of the Collection of Musical Instruments in the United States National Museum. By FRANCES DENSMORE. 8vo. 112 pp., 43 pls. 1927. (Government Printing Office, Washington, D.C.) 45 cents.

This is a valuable illustrated catalogue for purpose of study and comparison. It has but few contacts with Egypt, as most of the specimens are American or far eastern; but it should be known to all students, and a note at the end states that it can be obtained from the Superintendent of Documents, at the above address and price, postage under 10 cents.

JOURNALS.

Annales du Service. XXVI.

DARESSY, G.—*Voyage d'Inspection de M. Grébaut en* 1889. M. Daressy notes that a large manufacture of antiquities was carried on at Akhmîm, especially in wooden statuettes and inscribed mummy-labels. The detailed account of the condition of monuments at that date is a useful record, but not of general import now.

AIMÉ-GIRON, NOËL.—*Trois ostracon Araméens d'Éléphantine.* These had been thrown away by a previous excavator, and were now rescued from the sebbakhin. They are given in photograph for the sake of the writing, but unfortunately do not add to history.

ABOU-SEIF, HAKIM.—*Fouilles faites à Tehneh.* This account does not state whether the rock-tombs were of the late date of the contents, or were older tombs re-used; nor do the additional notes of MM. Lacau and Gauthier settle this. The contents were blue-glazed ushabtis, and canopic jars of a priest of Amen; *mer nut that* vizier, Onkh-unnefer; a divine father of Amen, Amen-em-apt; a prophet of Amen, Onkhef-ne-Tehuti; a second prophet of Amen, Pa-khred-ne-Ast.

JEQUIER, G.—*Fouilles dans le partie méridionale de la nécropole Memphite.* The Mastabat at Faraun appears to have been stripped of casing by Khoemuas. It had a lower course of granite. The chambers are entirely built of granite, finely jointed, plainly panelled. The passage has three portcullises, never lowered, a large chamber, with small chambers for offerings, and a false-arched chamber for the burial. The fragments of the sarcophagus are of a fine-grained quartzose schist. The whole work is closely like that of Menkaura; no further evidence is found of the name of Shepseskaf.

Close to the north-west of the enclosure wall was found a pyramid of Uzebten, queen of Pepy II. The entrance on the north opened beneath the paving outside of the pyramid; the work is irregular and poor. The chamber-walls have been smashed, but fragments show that they bore the pyramid text, probably copied from Pepy's without a change of gender. No trace of sarcophagus was found, and the funeral vases were nearly all smashed; hard stones were used as well as alabaster. The chapel is on the east face, and figures of the queen remain on the jambs. A fine altar of offerings, with steps rising to it, is of the same type as the altar of Kemmu, wife of Uah-ka of Qau. Part of a decree remains concerning the priests and offerings, dated in the 33rd year. Many private tombs adjoined this pyramid, and a doorway is copied of Ptah-se-onkh and his wife Hem-onkh or Hema. Other tombs are of Bau-khu, Ada, of whom there is a fine coffin with false doors, Ptah-uasha, and Henna who had painted stone models of offerings. The site of the lower shrine of Pepy II has been almost destroyed for stone.

LEFEBVRE, G.—*Herihor, Vizir.* This was the founder of the XXIst dynasty. The inscriptions on his statue from Karnak are here discussed. The statue placed in the temple was not granted by favour of the king but " by favour of Amen."

LACAU, P.—*Suppression des noms divins dans les textes de la chambre funéraire.*—In the formulæ the gods' names are spelled alphabetically, and Osiris is only called " Lord of Zeddu." Even the royal *nesut* is written *n.s.u.* The examples of this usage are on a sarcophagus of the Vth or VIth dynasty (Semnefer), and with other details of the VIth (Heliopolis).

GUNN, B.—*Inscribed sarcophagi in the Serapeum.* Only four of these sarcophagi bear inscriptions, those of Aohmes, Cambyses, Khabebesh, and *n* with blank cartouche. They are theological in substance, and a correction is made to usual rendering of the name Hep written with the goose; but this seems to be a phonetic complement, as it is used also with the name Hepy, one of the sons of Horus. It is also noted that it is not the Osirified Apis, as it is often the Apis-Osiris; this implies that it is a compound name of two gods, like Sokar-Osiris. In a separate paper following, Mr. Gunn corrects the translation of two Aohmes inscriptions, by the meaning of *nefer* as a negation (Gard., *Gram.*, p. 351), so the sense is that " His Majesty found that it (a sarcophagus) had not been made in a costly stone by any king at any time." This is a claim as starting the granite work, and hence all the Serapeum sarcophagi are later than Aohmes.

GAUTHIER, H.—*Nouvelle statue Thébaine de Sakhmet.* This is doubtless from one of the statues made by Amenhetep III; Sekhmet is called " lady of Khefti," an unknown place.

FIRTH, C. M.—*Excavations at Saqqara* (1925–26). This describes the entrance colonnade to the temenos of Zeser with its forty attached columns, which show a curious timidity in not leaving them free-standing, probably owing to the small sizes of the blocks used, only about 6 inches high. Two foreign heads conjoined are cut in black granite, and are described as being " of the so-called Hyksos style." This plunges deeper into the confusion of false names. The " so-called Hyksos " are not possibly Hyksos, but are earlier people, whom there is reason to look on as the Galla ancestors of the Uahka and XIIth-dynasty rulers. Further, the new heads are most distinctly not of this race. The mouth is straight, lips thin and compressed, and cheek-bones not prominent. They are clearly of another race, subjugated by Zeser, like two heads in University College, the purpose of which is shown by the head on a door socket (*Hierakonpolis* III). The Zeser heads were likewise belonging to the base of a statue, at C on the plan supplied. The feet of the statue here have on the top of the stool three rekhyt birds (representing the land-owners of Egypt) in front of the toes, while under the feet are the nine bows (representing foreign peoples). On the front of this stool the Horus-name *Neter Khet*, and a *bat*-name *Senui*, hitherto unknown. May this possibly reflect the claim of Khosekhemui, " the two gods are at peace in him "? Thus the reconciliation of Set and Horus is expressed more shortly, by Zeser himself, being the impersonation of the two brothers, *Senui*. The stool also bears the titles and name of Imhetep as royal seal-bearer,

deputy of the king, prince of the palace, high-priest of Heliopolis, and axe-man (architect). In the next bay to this base was a stand with lions' legs at the corners and twelve lions' heads around it. A similar stand is represented in the scene of *Sed heb* festival of Sahura.

In the ground south of the temenos a search was made before using it for dumping. In one tomb a seated figure of a scribe, and a fine wooden statue of a woman, were found, both published with the account. The skeleton of a horse of the XIXth dynasty was found in a ridge-roof coffin.

EDGAR, C. C.—*Tombstones from Tell Yahudieh.* These are of Sabbation and Nardion.

CHAABAN, M.—*Mission à l'obélisque d'Abguig (Fayum).* The limestone basis of the granite obelisk has been found, 142 inches square and 71 inches under the ground. As the obelisk lies on the ground, this shows that it was overthrown at least two thousand years after it was erected.

AIMÉ-GIRON, NOËL.—*Réfection du mur d'enceinte du grand temple de Dendérah sous Tibère.* A stele with a figure of Tiberius offering to four deities has thirteen lines of Greek inscription, stating that Caius Galerius being prefect, Quintus Praesidius Pedo Epistrategos, and Zoilos Strategos, the rebuilding of the temple wall was completed in the 9th year of Tiberius, 4th epagomenal day, or August 27th, A.D. 23.

PICARD, C.—*Une "Coré" Grèco-Égyptienne de Memphis.* This is published in Edgar's Cairo catalogue of Greek sculpture; it is carved in white limestone, and is here discussed in technical detail, concluding that it is the work of an Egyptian influenced by an Ionian type.

CHEVRIER, H.—*Travaux de Karnak (Mars–Mai,* 1926). The third pylon has been further evacuated, removing 12 blocks of Hatshepsut's sanctuary, and an immense block of alabaster, with cornice, probably from the roof of that building. One block has an excellent figure of the queen holding the flail, running forward, with the Hapy bull, a conflation of the scenes B and C in this Journal, 1925, p. 67. Other blocks show the queen kneeling under the protection of Amen, while Mut and Hathor give life to her. There is also part of a scene of Tehuti and another god pouring life over her.

The site of the Akhenaten statues has been further cleared, and there are bases of twelve, and nearly all the statues overthrown and more or less broken. They are extraordinary travesties of the king, apparently done while the "new art" was finding its feet, before it removed to Amarna.

The immense block of alabaster of the chapel roof, weighing 90 tons, cannot be removed without risk to the buildings; the face will therefore be sawn off.

LACAU, P.—*Un des blocs de la reine Ramaka.* This discusses the block with the bark of Amen, and that of the queen running with the bull, without defining any explanation, or alluding to the Nile-bringing elsewhere expressed.

LEFEBVRE, G.—*Les colonnes de l'hypostyle du temple de Khonsu.* The inscription of Herhor, as high-priest of Amen, are copied in full; they occupy four columns, and similar inscriptions of Ramessu XI are on the other four.

AIMÉ-GIRON, N.—*Stèle trilingue du stratège Ptolémée fils de Panas.* This declares the dedication of land south of the temple, from the east of the temple of Soter to the canal, in 12 B.C. The geographical position is discussed.

GUNN, B.—*A Shawabti-figure of Puyamre from Saqqara.* This was found in a model pottery coffin buried a hundred metres south-east of the temenos of the Step-Pyramid. It is of fine hard limestone, 12 inches high, finely cut. From the name and titles it is doubtless for the same man as the tomb 39 at Qurneh. Four other instances of ushabtis placed in holy ground, far from the tomb, are quoted.

WAINWRIGHT, G. A.—*A subsidiary burial in Hap-Zefi's tomb at Assiut.* This belonged to the steward Heny. The tomb shaft was almost across the axis of the entrance, and it was probably that of the steward of the first owner of the tomb before Hepzefa, at about the IXth dynasty. The pottery tray of offerings is earlier than the soul-houses; the canopic jar has arms in relief holding the breasts, like the arms on the canopic of Uah-ka. The seated figure of Heny is of clumsy, heavy style.

GUNN, B.—*The coffins of Heny.* The loose boards which had formed the coffins are here described. They have the usual list of offerings, drawn with names; also part of an astronomical scene, which requires discussion with other lists.

QUIBELL, J. E., and OLVER, A.—*An ancient Egyptian horse.* The burial was at Saqqara, subsequent to the leaving of papyri dated to Ramessu III; therefore "anything between the XXth dynasty and the Ptolemaic period." The horse is of North African type, not Arab.

GUNN, B.—*Inscriptions from the Step-Pyramid site.* This deals with the fragments of the statue, the base of which is already described in the report on the excavations in this volume. It is concluded that the rekhyt were a Delta race subjected by the Egyptians; this hardly takes account of the important position of these on monuments, and the high officials who patronised them. That they were the freehold peasantry seems the most likely (see ANCIENT EGYPT, 1925, p. 105). An architect's diagram of the IIIrd dynasty is described; it is a part of a quadrant with vertical sectors having numbers written against each. These numbers are 98, 95, 84, 68, 41 digits (expressed in cubits, palms, and digits), and produce an empirical curve not the arc of a circle. Hence the architect drew an outline at discretion, and then measured it off to give directions to the clerk of the works.

EDGAR, C. C.—*Fragments of papyri from Oxyrhynchos.* A list of the carvers of hieroglyphs at Oxyrhynchos, only five in all. A letter from the man who made this official return, to his father, mentions that the centurion at Akoris (Tehneh) had sent to him for the carvers. Probably workers in the special trade, who were only wanted when monuments were required, went about from place to place for a few months or years as business arose. This was in A.D. 107, when temples were on the wane. A few lines belong to the campaigns of Alexander in India; this may be from Ptolemy's history. The other pieces are purely literary.

MONNERET DE VILLARD, UGO.—*Discrizione generale de Monastero di San Simeone presso Aswân.* This account is similar to that in the author's book on the subject, which was reviewed in our last number.

DARESSY, G.—*Recherches Géographiques.* This discusses the principal sites of the northern Delta, below Tanta, taking into account Hogarth's exploration of the region. This study is essential for future work, but cannot be usefully summarised.

GAUTHIER, H.—*Statuette antérieure à la XIe Dynastie.* This is the leg of a wooden figure on its base, probably from Saqqara, as it adorns Ptah-Seker-Osiris of Onkhtaui. It is of the *rapot hat* of Auntyt; then follows  ? which is supposed to be "of the south and north," *i.e.* Dendera and Heliopolis, but it is very unlikely that places so far apart would have one ruler. Perhaps the whole group is "royal . . . of the town," the supposed *meh* being really some official title. He was a mayor of the south court of thirty, Khnumu-em-hat, son of Antef

Zur Geschichte der jüdischen Kolonie von Elephantine. By W. STRUVE. (Bulletin de l'Académie des Sciences de l'U.R.S.S., 1926.)

Dr. Struve discusses the date of the foundation of the Jewish colony at Elephantine as an Egyptologist and not as a Semitist. The Aramaic papyri give a *terminus ante quem* in the words of the representative of the colony to the Persian governor: "Already in the days of the Kings of Egypt our fathers built that temple in the fortress of Yeb, and when Cambyses came to Egypt he found that temple in existence." According to Dr. Struve, the inscription on the statue of Es-hor (Nesu-hor), a great official of King Apries, gives the *terminus post quem.* Es-hor was "appointed by his majesty to a very great office, the office of his eldest son, Governor of the Door of the South Countries, to punish the foreign countries which rise against him." After an invocation to the deities of the Cataract, Es-hor gives an account of all the works he had done for the gods and also the reason for his piety: "For you rescued me from a miserable plight at the hand of the mercenaries, Bedouin, Greeks, Asiatics and others, who had set their hearts [to evil] and had set their hearts to go to Shas-hert. His Majesty feared the evil which they should do. I re-established their hearts according to my project, and did not permit them to proceed to Nubia, [but] caused them to go to the place where his majesty was, that his majesty might execute their punishment." This inscription has long been recognised as the account of the mutiny of the mercenaries under Apries recorded by Herodotus. The mutineers were all foreigners, "Bedouin, Greeks, Asiatics and others." They were sent to the Pharaoh; and though the form of their punishment is not recorded, it is very certain that unreliable troops would not be allowed to return to an important frontier fortress. Dr. Struve argues that the Jewish colony could not have been founded before the mutiny, as the Jews would have been deported with the "others," and thus arrives at the *terminus post quem.* The Biblical account shows that Apries, directly after his accession, adopted the ancient idea of Asiatic conquests. He hoped to find in Judaea the fulcrum for his Eastern campaign, and the little Hebrew kingdom was induced by its reliance on Egyptian help to make war on the Babylonian empire. Apries

knew the gravity of the undertaking and the need for soldiers. Dr. Struve suggests that the mutineers were removed from the comparatively safe quarters at Elephantine and were distributed among the troops at the front, and that this was the "project" which Es-hor records. After the war the depleted garrison would be brought up to its original strength, partly by Egyptian soldiers and partly by Jewish fugitives, who, according to Jer. xliv, 1, 15, went to Pathros (P^{3}-t^{3}-rsi), the South Land of Egypt. These Jewish fugitives of the year 586 B.C. would therefore be the founders of the colony at Elephantine, who "in the time of the Kings of Egypt built that temple in the fortress of Yeb."

The Difnar (Antiphonarium) of the Coptic Church. Part II. By DE LACY O'LEARY. 119 pp. 1928. (Luzac & Co.) 12*s*.

This part of the Coptic Difnar contains the four months Tubeh, Amshir, Barmahat and Barmuda. The text is taken from the Vatican Codex Copt. Borgia 59. The fact that Dr. O'Leary is the editor is a guarantee of the accuracy of the edition; and it is most important for the study of the language that such texts should be accurately published, and presented in an accessible form. The whole study of Coptic has suffered because so few reliable texts have been available, and the thanks of all workers in this field are due to Dr. O'Leary for his labours.

M. A. MURRAY.

RECENT DISCOVERIES OF THE BRITISH SCHOOL OF ARCHAEOLOGY IN EGYPT.

THE exhibition of recently discovered antiquities has been held annually in University College, Gower Street, for thirty-five years or more, during three or four weeks of July. It will not be of less interest this summer than in former seasons, thanks to the site chosen, and the labours of our seven students, who in the past few months have indefatigably pursued our field work on the lines laid down, the previous season, at Gerar.

The year's work began with the copying of wall-scenes in the rock-tomb of a daughter of Khufu, at Qau, in Upper Egypt. This occupied five of our staff until Christmas, after which four of them moved to South Palestine, to resume our excavations there. Mr. Starkey had meanwhile done some exploratory surface work in East Palestine, and joined the party at Tell Fara, in the province of Beersheba, to take charge of the expedition, from January till May.

The *tell* is a large mound with important remains, and adjacent cemeteries. Sir Flinders has identified the name Tell Fara with that of the O.T. city Beth-paleth.

The forthcoming exhibition will contain the various objects found in this site, including bronzes, painted pottery, some gold-work and jewellery, and will be open from July 6th to 28th (10–5, daily) and on evenings of 10th and 20th, 6.30–8.30, admission without fee or ticket.

HILDA PETRIE.

NOTES AND NEWS.

THE British School of Archaeology in Egypt continues its work in " Egypt over the Border," on Tell Fara ; the two cemeteries are being cleared this season, while we postpone the work on cities of the Tell to future years. Already, by March, twice as many scarabs and seals were found as those from Gerar, and a large amount of perfect pottery. When the stone-walled houses can be cleared in the Tell we may hope for much more of the general objects ; already the level of the XVIIIth dynasty has been reached. The lecture on the discoveries will be given at University College, Gower Street, on Thursday, May 24th, at 2.30 p.m., and repeated on the 25th at 5 p.m., and on Saturday, 26th, at 3 p.m. The Exhibition will be from July 6th to 28th, and the evenings of the 10th and 20th. Last winter, Lady Petrie stayed in England to collect the funds which are essential for the work of excavating. The Director was engaged in archaeological research and writing in Rome.

Archaeology in England has suffered a great loss by the death of Dr. Hogarth at the age of 65, when we might have hoped for many years of his ripe knowledge and experience.

Another loss, especially to American work, is that of Arthur Mace, who died in hospital at New York. He had worked for the Exploration Fund, for Dr. Reisner, and for Dr. Lythgoe, mainly on the pyramid field of Lisht, and latterly in the Tutonkhamen tomb. We might have hoped for twenty years more of his activities, and especially for the publication of all his work at Lisht, of which only one tomb has been issued.

The retirement of Mr. Quibell from the management of the Cairo Museum has been sadly clouded by the sudden death of Mrs. Quibell, who began her labours in Egypt with the Egyptian Research Account, and afterwards constantly joined in her husband's work, illustrating much of his discoveries.

Last winter has proved a rich period of discovery in many countries. In Egypt, the opening up of the fine relief-sculptures of King Zeser beneath the great wall at Saqqarah has been eclipsed by the finding of unexpected chambers below the Step-Pyramid. These have beautiful figures of Zeser in very low relief, and the walls are lined with blue tiles to imitate matting ; there is also a great mass of fine stone vessels, some of which bear names of earlier kings. It is now supposed that the rooms below the wall were intended for a pyramid there, but the site proved unsuited to so great a pile of masonry, and, therefore, the rooms were duplicated under the fresh site used for the Pyramid. The other chambers, which were covered with the wall, were used for a very important burial, perhaps of Imhetep the architect.

The work of clearing the tomb of Tutonkhamen has gone forward, and the canopic chest has been cleared, as well as most of the boxes of objects in stone. There is still much to be done, before the total is known. Then there comes the business of efficient publication, and some efforts of the civilised world to galvanize the Egyptians into providing for all the treasures bestowed on them by excavation. So far, nothing has been started for the great building needful to safeguard all the new discoveries. All that is done is to squeeze up and displace the crowded contents of the present museum, without providing any efficient space for the new material.

In the Fayum, Miss Caton-Thompson has been clearing up the Ptolemic irrigation system, finding a stone-lined reservoir of over 500 cubic yards for the vineyards. A site with flint tools of the early dynasties has been fixed, also with stone vase working and supplies of gypsum.

Mr. and Mrs. Brunton have been continuing to seek the Badarian remains, and obtained further results which somewhat extend our view of the period, and which will be reported in our next number.

Mr. Francis Rodd has been studying the Tuareg in the centre of North Africa, and considers that the rock-drawings of figures wearing feathers show a kinship with the figures with feathers in the XIXth dynasty invaders of Egypt.

At Ephesus, an enormous stairway, dedicated to Isis or Serapis, is reported by the Vienna expedition.

Further east are the most important discoveries by Mr. Woolley at Ur, where he is bringing to light the works of an earlier civilisation than was hitherto known, of astonishing splendour, and fine workmanship. An entire new section of Oriental history, which must have a long past behind it, is now being opened. The marvellously rich details of jewellery in the tomb of queen Shub-ad have been reported in *The Times*, and it is surprising that the brick arch and domes were already used at that date, a thousand years before Naram-Sin. Near Kish other remains of this age are found, opening up the private life of the time with pictograph tablets, seals and pottery, probably pre-Sumerian. All of this great past was as remote before the Assyrians as they are before us.

In the Indus valley, perhaps, a still earlier past will be reached; the upper city of Mohenjo-Daro, of which 13 acres have been cleared, is only the top of 30-feet depth of earlier buildings, before the upper layer, which is estimated at 3,000 B.C. The fine brickwork and provision of regular drainage place this civilisation on a higher level than those of Iraq or Egypt. The subjects of the art are clearly Indian, and mark the civilisation as being native, though largely influenced from the Sumerian. Our former workers, Mr. and Mrs. Mackay, are in charge of this research.

ANCIENT EGYPT.

BETH-PHELET.

THE chief work of the British School last season lay in Palestine, at Tell Fara, a site nine miles south of Gerar, or eighteen miles from Gaza; it is in the southern wilderness, which can only now be cultivated in rare years of sufficient rainfall. The attraction for our working there was the thickness of town ruins, the stone walling showing its importance, and the position overlooking the

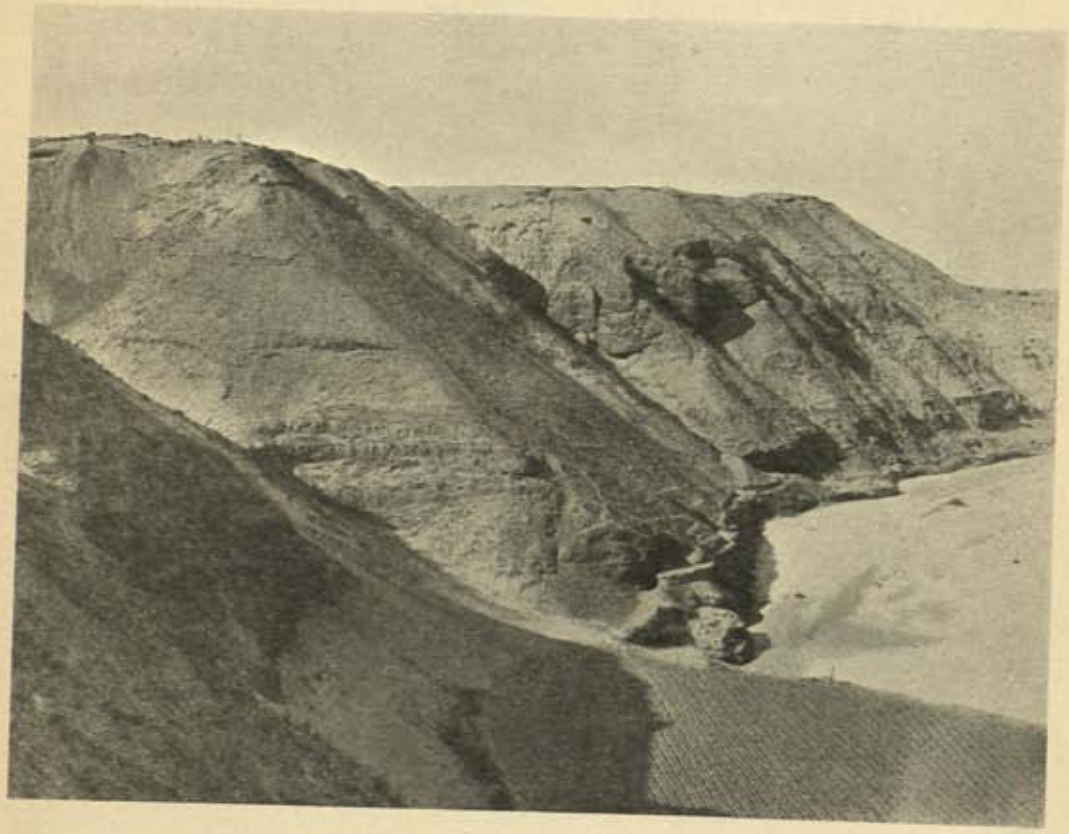


FIG. 1.—WEST FACE OF TELL FARA, BETH-PHELET.

main water supply on the way to Egypt. The present name, Fara, means "escape"; in Arabic, *far* a fugitive, *farra* he fled, *felata* he escaped (*r* and *l* readily interchanging); Hebrew, *phalet*, escape. This name refers to the position on the edge of the desert, which rendered this a place of escape out of desert perils from Bedawy, or drought.

Though the work of last season only cleared part of the upper levels of the town, it reached to the time of the XVIIIth dynasty, and there are the lower levels yet to be examined. Most of the digging was given to the cemeteries, the tombs there going back through the age of Jewish occupation. The city appears, under Joshua, as one of the cities of Judah ; it was probably the home of the Pelethites, the body-guard of David ; and from here came one of David's twelve generals ; it was occupied under Nehemiah.

FIG. 2.—STONE EMBANKMENT ON RIVER FACE.

On the east side, the hill is bounded by the steep slope into the Wady Ghuzzeh (fig. 1), and the north and south ends are also inaccessible, owing to ravines cut by side streams. Only on the west side is the hill accessible from the plain, and here it has been defended by a brick wall 15 feet thick, well built of good bricks, of the time of Ramessu III according to the brick sizes, like those of Gerar. How much the site was valued is seen from the massive stone embankment (fig. 2) 20 to 30 feet thick, and 270 feet long, which protects the base of the hill from the stream. Toward the south end was a fort of Jewish date. The north end looks toward the springs, which form broad sheets of water in the valley ; this prospect and the northern aspect, for coolness, will probably have led to the best buildings being at this end, but it has not yet been examined.

In the plain to the south lay the cemeteries. A large number of tombs were searched, extending back to the XIXth dynasty. It was found that all

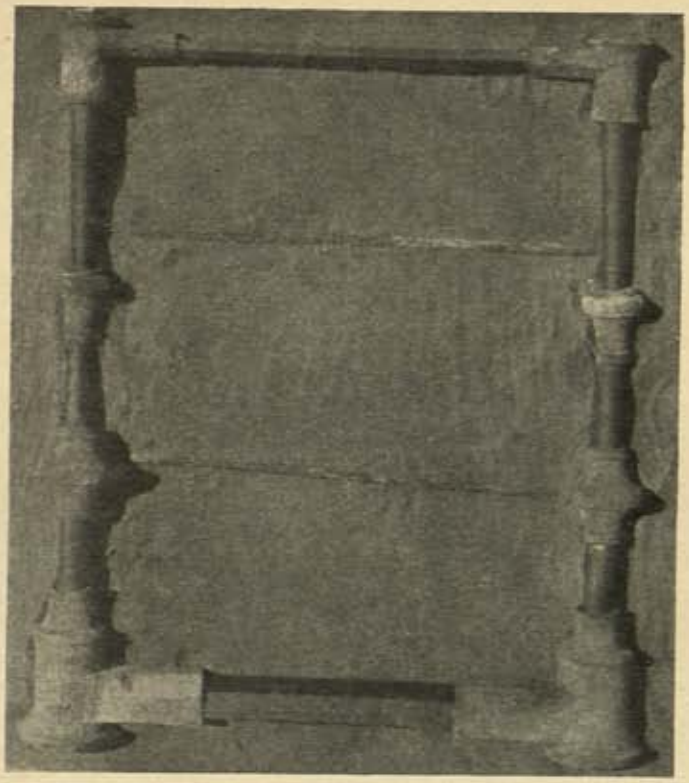


FIG. 3.—BRONZE COUCH.

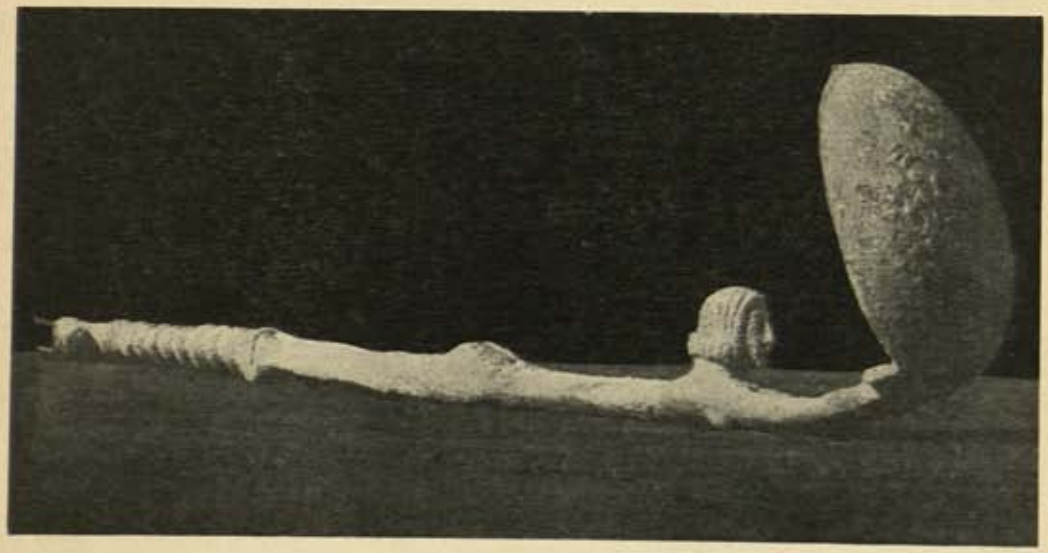


FIG. 4.—SILVER LADLE WITH HANDLE AS A SWIMMING GIRL.

had been attacked anciently. The finest group, in one tomb, contained a bronze-fitted couch of Mesopotamian pattern (fig. 3) with a gadrooned silver bowl, also a silver dipper, having the handle modelled as a swimming girl (fig. 4). These unique objects naturally stay in the Palestine Museum. Pottery and occasional pieces of jewellery, and tools, were still remaining in the other tombs. Many strings of beads were obtained, principally of carnelian, and about two hundred scarabs, proving much connection with Egypt. Among the small

objects were some gold bands and many gold beads, a bronze figure of a bear walking upright, and a calendar board with peg holes for thirty days. Much pottery was found in perfect condition, some of it painted in the Philistine style, about the XXth–XXIInd dynasties.

All these will be seen in the annual exhibition at University College, from July 6th to 28th. The staff who had assisted us at Gerar undertook the excavations at Tell Fara; Mr. and Mrs. Starkey, Lieut. and Mrs. Risdon, and Mr. Harding, and the Assistant Secretary, Miss Tufnell, joined in the work. The men and children of the previous season swarmed down into the wilderness, but only about half the number were employed. As before, they proved efficient and amenable, and being now trained in mind and body, the excavation proceeded apace. It is a large site and we shall hope to excavate the lower levels of the town next season, as well as making a search for older cemeteries. As it is a site of historical and Biblical interest, it is hoped that contributions will come in well, so that we may not be hampered in our researches.

FLINDERS PETRIE.

THE CURRENCY REFORM OF PTOLEMY II.

THE Greek conquest of Egypt brought with it the regular use of coined money as a medium of exchange; and the first scheme of currency was, in its broad outlines, the same as that followed in other parts of the Empire of Alexander. Ptolemy I struck coins of gold and silver for the higher denominations, valued on a bimetallic standard, with copper pieces of various sizes up to 30 mm. diameter for the lower, forming a token issue. But in the reign of his son a notable change was made, the date of which has been fixed at 270 B.C. by Svoronos, whose conclusions have found general approval. The most remarkable feature of this was the introduction of much larger copper coins, including three denominations measuring respectively 48, 42, and 36 mm. in diameter, which thereafter dominated the local circulation in Egypt, and this change has perhaps more than a purely economic significance.

In the first place, it should be observed that such huge copper coins were practically unprecedented in the Greek world. If the Greeks went to an extreme in regard to the size of their coinage, it was rather in the other direction; many of their issues were such as would now be considered inconveniently small, such as the fractional silver of Athens and the tiny subdivisions of Ionian electrum, and the large silver pieces which appeared occasionally, as at Athens and Syracuse, were virtually medals. For a parallel to the Ptolemaic copper at this date it would be necessary to go to Central Italy, where copper or bronze was the native currency; and there the large bronze coins were essentially Italian, not Greek, in character. In Southern Italy and Sicily, where copper was equally at home, but Greek influences were stronger, nothing even approaching the size of the Ptolemaic coins appeared till much later. (The isolated case of Olbia, on the Black Sea, can be left out of account.) It was a distinct break with Greek numismatic tradition for a Hellenistic king to issue such a currency as that of Ptolemy II.

The reason for this break is doubtless to be found in the local circumstances of the kingdom. Not only was the use of coined metal for purposes of exchange a novelty in Egypt, but also the idea of a standard based or partly based on silver was foreign to the Egyptians. Their traditional method of reckoning values was in copper, and it is probable that the native traders found means of expressing their conservative preference with sufficient force to persuade the government that it was desirable to accommodate them by providing them with a substantive coinage in the metal to which they were accustomed. The Ptolemies had started to carry out Alexander's policy of fusing Greeks and natives, and when they saw that a purely Greek currency was too great an innovation to be accepted, they modified it by adopting an Egyptian element.

This supposition may be supported by the obverse type chosen for the new copper coins. Previously the types had followed Greek usage, and had been purely Greek; in the gold and silver the obverses, after Ptolemy I had taken the style of King, bore his head, while on the copper there also appeared the heads of Alexander (in two varieties, one with elephant-skin headdress, the other bare) and of Zeus. While these were retained for some time on the smaller copper coins of the old denominations, the larger pieces were stamped with the head of a deity who had local associations—that of Ammon of the Oasis of Siwah, and it may well be that this type was selected to mark these as distinctively Egyptian currency.

It is true that the particular representation chosen was that of the Greek Ammon, a bearded god with a short horn on the temple curling round the ear, which may have been brought to Cyrene by the Dorian colonists and thence carried inland to the Oasis. At any rate, this type was at home in Cyrene from the earliest period of which any artistic record exists, and the oracle in the Oasis appears in Greek history before it does in Egyptian. But from the time of the Persian invasion of Egypt the Theban cult of Amen-Ra had been identified at Siwah with that of Ammon; possibly Theban priests of Amen fleeing from Persian persecution found a refuge in this and other oases, where temples of Egyptian style were built; and the identification was easy, as at Siwah there was already a god, not only with a name very similar to that of their own, but also horned like him, though the horns were of a different breed. Such an identification of Greek and Egyptian deities was in full accord with the Ptolemaic policy of fusion; so it was natural that, when a type was wanted to mark certain coins as Egyptian, it should be found in the head of a god whose Egyptian affinities had been officially recognised by the native priesthood.

There may be some connexion between this choice and the development, apparently about the same time, of the Alexander Romance, with its insistence on the Egyptian religious significance of the visit to the Oasis. So far as can be traced, the earlier accounts of this visit knew nothing of any Egyptian ceremonial in the temple at Siwah: they probably gave a straightforward story of a journey to consult the oracle after the fashion of the Greeks, about which the most remarkable thing was that Alexander should have spared the time for the trip. But the Romance added all sorts of picturesque embroidery, magnifying a journey which the Greeks of Cyrene must have taken continually along a well-known track, into an adventure through fabulous perils from which the hero was only rescued by miraculous aid; and its account of the proceedings at the oracle is presumably as fanciful as that of the journey. The value of the Romance is put succinctly by Mr. Bevan (*History of Egypt under the Ptolemies*, p. 3): it was "concocted partly in order to flatter Egyptian national feeling and represent Alexander as a true successor of the native kings." But the fact that it should have been concocted is significant.

Attention should here be drawn to the development of the artistic representation of Alexander with a horn on his temple, which is considered to show that he desired to be worshipped as the son of Ammon. It is not certain that the horn is directly derived from Ammon: it clearly does not come from the Egyptian Amen-Ra, as it is always the short-curved one of the Greek type, not the long double-twisted one of the Egyptian; and, though it is like the horn of Ammon, the youthful head is more like that which appears on the coins of Cyrene and has been identified by Imhoof as that of the Dorian god Carneius,

who was worshipped there and in several parts of Greece with Ammon and was horned like him. Carneius may indeed have been regarded as the son of Ammon, and this may explain the use of a head like his for Alexander; but the important point for the present purpose is that the horned type of Alexander did not appear till some years after his death, and then not in Egypt, but in Thrace, on the coins of Lysimachus; and, as there is evidence of the worship of Ammon and Carneius in the north of the Aegean (for instance, at Aphytis in Macedonia, Thymbra in the Troad, Pitane in Mysia, Mytilene, and Tenos), it may be that Lysimachus derived the type from local cults, and that it was brought to Egypt, with its implications of the sonship of Ammon, by Arsinoe II when she came back, the widow of Lysimachus, to marry Ptolemy Philadelphus.

Mr. Tarn has recently suggested that Philadelphus married Arsinoe "because he needed her brains" (*Hellenistic Civilisation*, p. 13); certainly the six years that followed, till her death in 270, were, as he says, Egypt's golden age, and it is most probable that she was the directing genius of Egyptian policy. It is tempting to ascribe to her initiative the measures which were taken about this time to strengthen the position of the Greek dynasty, and to carry on Alexander's scheme of fusing races by conciliating native Egyptian feeling; she may have realised that Egyptian nationalism was a living force, which could not be compelled, but might be cajoled. If this be so, it was a fitting echo of her doctrine when, six years after her death, a decree was issued appropriating certain sacred revenues to her worship. As Mr. Bevan has pointed out, this was really a move of the king to control ecclesiastical finances; but it was veiled under the form of a transfer of endowments from one religious purpose to another, and the new purpose was one which brought a Greek princess into line with Egyptian tradition. Arsinoe had been recognised as a goddess in Hellenistic fashion in her lifetime; now she took a place in the ranks of the deified rulers of Egypt.

There is no definite proof available; but it seems not unreasonable to suppose that it was Arsinoe who suggested the idea of adapting the currency to native customary uses by the issue of coins on a copper standard, and marking them with the head of a god who was known in Egypt and whose relations with Alexander were in course of being elaborated with Egyptian trappings in the Romance. And it may have been in recognition of the authorship of this suggestion that the new series of copper was accompanied by imposing pieces of gold and silver of unusual size bearing the portrait and name of Arsinoe.

J. G. Milne.

OSIRIS IN THE TREE AND PILLAR.

THE principal view of the nature of Osiris is that preserved by Plutarch, which is generally accepted as a careful statement of the belief in his time. Various references and details of the worship of earlier ages accord with this, until we go back to the earliest dynasties when Set was independently venerated. This reflects a difference of tribe, as the " two gods," Set and Horus, were then equally worshipped. In all the references that we have, there is nothing to contradict the popular view recorded by Plutarch, as being held by one important part of the Egyptian stock. As original sources are not always familiar, it is well to begin with those parts of the legend which concern the present subject. The epagomenal days, five beyond 360 of the monthly calendar, were dedicated as the birthdays of Osiris, Horus, Set, Isis, and Nebhat. Thus the Osiride family belong to the formation of an exact calendar by Thoth, who established the extra days. At the birth of Osiris, a voice was heard saying, " the lord of all the earth is born." Osiris, having become King of Egypt (how is not stated), civilised the Egyptians by turning them from a poor and barbarous course of life ; he taught them to cultivate and improve the fruits of the earth, he gave laws, established worship, and travelled to induce people to submit to his discipline. Set conspired against him, tricked him into a chest that was fastened down and thrown into the river, which bore it down to the sea. Thus it reached Byblos, and rested in the branches of a tamarisk ; the tree grew round it and covered it. The king had the tree cut down, and used as a pillar for his house. Isis followed it, and begged to have the pillar ; she opened it and, taking out the chest with the body of Osiris, returned with it to Egypt. Set discovered the chest, broke up the body into fourteen pieces, and scattered them over the country, where they were worshipped. This scattering of the body of the God of Agriculture is like the use of the body of King Halfdan in A.D. 860. " He had been a king of plenteous years . . . and all prayed to have the corpse with them . . . to have plenteous years therewith ; so they agreed to share the body in four . . . each took away their share and laid it in mound " (Heimskringla).

In our last number there is an account of two Georgian folk-tales from the Caucasus. In one tale, a girl has to be buried to produce good crops. She hides in a tree ; next, she is thrown into the water by a rival, is taken out, but killed. From her bones springs up a magic tree. In another tale a girl, to escape from her father, has a pillar of the house prepared with a door for her refuge. The house is pulled down, and thrown into the water. Borne to a foreign land, the pillar is set up in the room of the prince, when the girl emerges and marries him. In these tales there are the essential elements of the hiding in a tree or the pillar of a house, the throwing into the water, and rescue from it, and the burial to

ensure good crops. The writer, Frank-Kamentzki, who reports this, justly remarks on the parallel to the details of the Osiris myth. It will be remembered that the kingdom of Osiris was called Akret or Ikret, and is often named in the Book of the Dead, and the ancient capital of Georgia was Kartlia, the Greek Ekretike, or region of Ekret. The other places named in the Book of the Dead have also names closely like those around Ekretike, in the same relative positions. (*See* ANCIENT EGYPT, 1926, p. 41.) This region, therefore, is linked with Osiris, both by the ancient geography and by the modern folk-tales. Somewhat more of the Osiris legend is preserved by Diodorus, who says " He was the first that forbade men eating one another. Isis found out the way of making bread of wheat and barley . . . Osiris teaching the way and manner of tillage."

Now we turn to the actual remains, for consolidating the legend and giving it a real basis. The Osiris worshippers must have been as early as the Badarian age, as corn was grown and ground by that people. As there are no figures of an earlier race except the steatopygous, that was probably the race which Osiris reclaimed from cannibalism. Such a practice must have been well known to the Badarians by the allusions to it in the Book of the Dead, which refers so familiarly to the kingdom of Osiris.

From the Badarian type of skull being most near to the Dravidian and early Hindu, there is a presumption that both races moved from some common centre, probably in Asia.

The position, then, to which we are led, by putting together these various remains and legends, is as follows. A people living in the region of Georgia possessed agriculture and some civilised arts. Parts migrated to India, and another part went through Syria to Egypt. They brought with them the myths of their homeland, connected with the principal places between the Black Sea and the Caspian, and possessed a civilisation which decayed in Egypt. The polished stone axe they tried to imitate, but very feebly; the pottery became coarse and poorly finished; but they successfully civilised the steatopygous folk which they found in Egypt, and they upheld the elevating ideals of the beneficent Osiris and the faithful Isis.

Now we have seen that the Osiris legend is particularly associated with a tree and a pillar, in which the god dwells, and this worship passed down into Egypt through Syria, where Byblos was the centre of Osiris worship. In Canaan the typical worship was connected with the emblems of the *asherah* " grove " or " tree " sacred to the goddess, and the *matzebath*, or pillar, of wood or stone. In Exod. 34, 13, the command is " Ye shall destroy their altars, break their pillars, and cut down their trees." In Deut. 7, 5, this is repeated; in 12, 3, " overthrow their altars, break their pillars and burn their trees with fire " (thus the pillar was of stone and the *asherah* of wood) " and ye shall hew down the graven images of their gods " (thus the statues were distinct from both the *matzebath* and the *asherim*). In Deut. 16, 21, Wiener considers the original text to have been nearer the LXX form, " Thou shalt not plant for thyself an *asherah*, any tree, beside the altar of thy God. Neither shalt thou erect for thyself a *mazzabah*." In Judges 6, 25, the *asherah* was cut down, proving it to have been of wood. In later times it was carved in wood, as Manasseh set up a carving of the *asherah* (2 Kings 21, 7). In Isa. 27, 9, " the *asherim* shall not stand, and the sun pillars shall be felled like a forest " (Wiener). The nature of the *asherah* or sacred tree is best explained by the continuance of the worship in Palestine, where holy trees are thought to be the habitation of a spirit of a saint,

who appears on different occasions, and is called Our Lady, or the Sheykhess. Such saints heal the sick, help the oppressed, guard the property of their neighbours, and protect the village. In short, they are deities fully competent to aid life in every way. (*See* p. 61.)

From all these examples we see that a pillar (sometimes linked with sun worship like the obelisk) and a sacred tree, or trees, were the regular *sacra*, or abodes of divinity, by the altars of the Canaanites. Such also appear on Cretan gems, as one from Knossos (fig. 1), and one from Mykenae (fig. 2). Other sacred scenes do not show more than a tree within the enclosure. (*See* Evans, *Tree and Pillar Cult*, figs. 48, 52.)

FIG. 1.—KNOSSIAN GEM.

FIG. 2.—MYKENAEAN GEM.

FIG. 3.—PALATINE FRESCO, ROME.

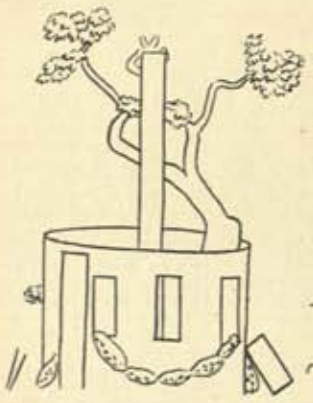


FIG. 4.—MAGGIORE BASILICA.

FIG. 5.—THERMAE MUSEUM.

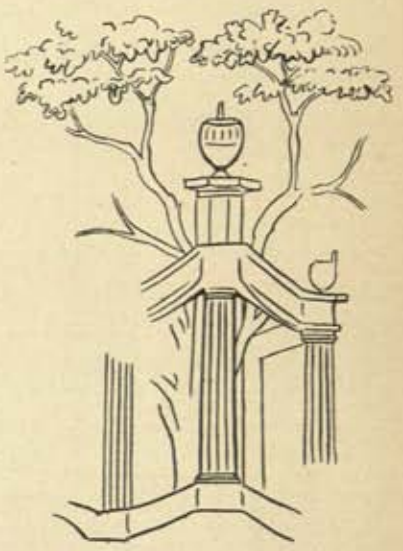


FIG. 6.—THERMAE MUSEUM.

The great illustration of this worship was in Rome, under the early Caesars, and these foreign rites were not like those of which Pomponia Graecina was accused, as they were fully recognised in the reliefs of the Imperial buildings on the Palatine. In a beautiful wall fresco which has never been publicly shown, and is only known through a copy in Eton College, the altar is blazing at the foot of an olive tree, a tall pillar bearing a vase stands near it, and in the back-

ground is a shrine built against a cliff (fig. 3). A great field of these scenes of tree and pillar-cult is the subterranean basilica which lies under the railway lines, outside of the Porta Maggiore at Rome. Around the sides of the hall are twenty-eight different scenes of tree and pillar stucco reliefs, and seven more are in a narthex, at a higher level. Among these are plain pillars in circular enclosures with aged tree (oak ?), and a garland hanging from the wall. A scarf is tied round the top of the column (fig. 4).

FIG. 7.—THERMAE MUSEUM.

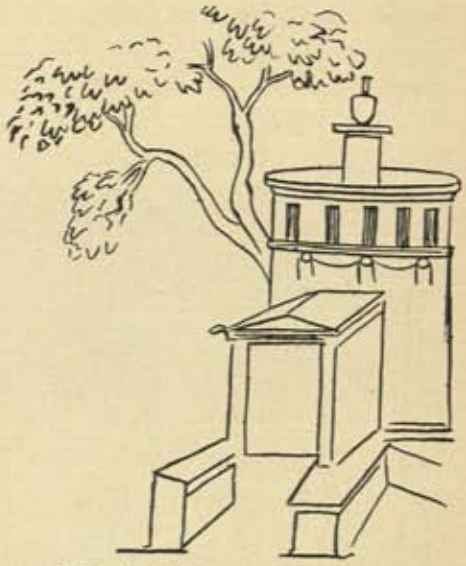


FIG. 8.—THERMAE MUSEUM.

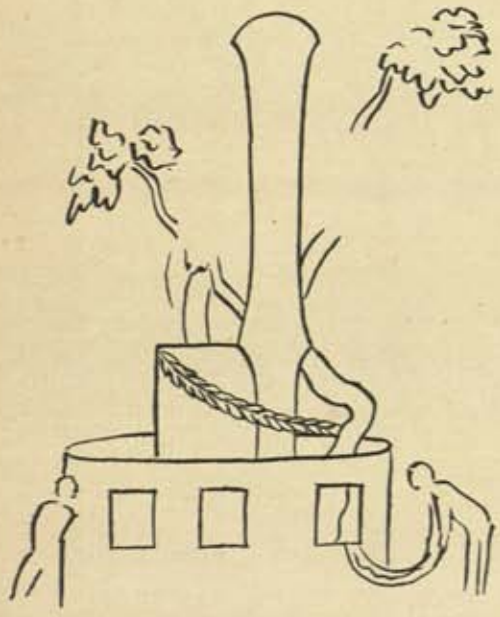


FIG. 9.—MAGGIORE BASILICA.

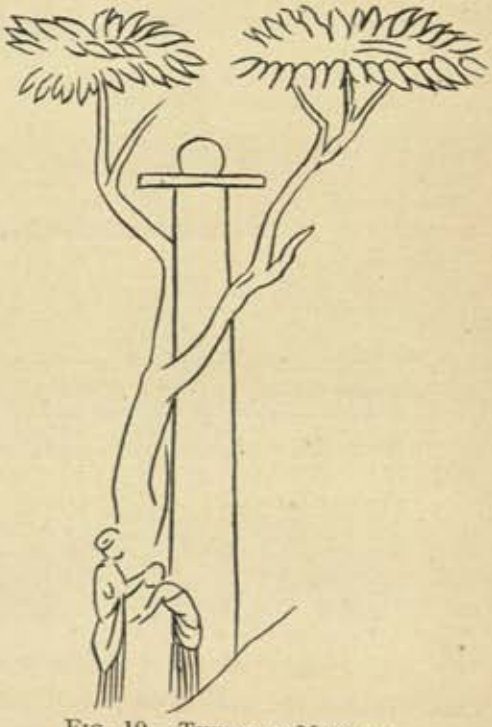


FIG. 10.—THERMAE MUSEUM.

Another type is twice shown on the Farnesina stucco scenes, now in the Thermae Museum. In these there is a trilithon with the tree growing through the opening (fig. 5).

From the same reliefs there is a tree and an octagonal pillar bearing a vase in a quadrangular enclosure supported on three fluted pillars (fig. 6). Another scene is of a fluted Ionic column with a scarf around it, and a tree by its side. An open loggia, garlanded, and a tall circular building adjoin it (fig. 7). In another instance the column is in the circle, with the tree growing by it, and a porch entrance (fig. 8).

Another group from the basilica has a strange emblem like a steering-oar or rudder. As this is the usual accompaniment of *Fortuna redux*, it may mark a shrine of that goddess (fig. 9). Among the Farnesina reliefs is a column bearing a globe, and a stone-pine growing around it. This seems to allude to the sun worship, which is mentioned by Isaiah in naming sun-pillars (fig. 10).

It cannot be supposed that these ornamental stucco scenes are strictly ritualistic in all the details, but they certainly show how popular such worship was, and the general nature of the *sacra* and surroundings. In the Farnesina stucco work, the tree is generally the stone-pine, the painting has the olive (if the copyist is to be trusted), and another tree appears to be the oak. The tree is never young, but usually old and gnarled; an ancient tree was considered more sacred. The vases on the columns are more probably only fanciful additions. This worship of trees must not be confounded with other veneration of trees alone, and without being a divine dwelling; such were the holy trees of Rome or Sweden connected with a family or person, these are more of the Bata type where the person is insylvate. Nor must these be confounded with the heavenly tree Yggdrasill of the Norse.

Strange to say, this worship even influenced Christianity. Among the logia, or reputed sayings of Jesus, on the leaf first found by Grenfell, there is the saying:—

> "Raise the stone and there shalt thou find me,
> Cleave the wood and there am I."

No explanation of this saying has yet been given, but raising the stone implies a tall stone or pillar, and it is said to be the divine dwelling; the tree also is dwelt in, and in some mystic sense the presence is revealed when it is divided.

Such is the long course of a mode of reverence for stocks and stones which continued during many ages as the most obvious form of Nature worship.

FLINDERS PETRIE.

EGYPTIAN OBJECTS FOUND IN MALTA.

A CERTAIN number of Egyptian objects have been found in Malta; but, with few exceptions, there is no record of the actual place or method of finding.

I. Round-topped limestone stele, now in the British Museum. Date, late XIIth dynasty. Upper register: Vertical cartouche, "The good god, Ne-maāt-Ra." On the right, couchant jackal on perch holding *ankh*, three vertical lines of hieroglyphs, "Beloved of Wep-wawet, lord of the necropolis." On the left, standing figure of Osiris holding *was*-sceptre and *ankh*, two vertical lines of hieroglyphs, "Beloved of Khenti-Amentiu, lord of Abydos." Ten horizontal lines of inscription :—

FIG. 1.—STELE OF ONKHEF.

(1) O ye who live upon earth, every *wab*-priest, every lector-priest, every scribe, every *ka*-servant,
(2) who pass by this endowed stele for ever; ye who love your life and your king,

(3) ye who praise your city-gods, ye who transmit your offices to your children,
(4) say ye, May Osiris, lord of Abydos, give a royal offering. May he give the funeral offerings of bread and beer, oxen and birds, alabasters and linen, incense and perfume,
(5) all things good and pure, which heaven gives, which the earth produces, which the Nile brings, and on which the god lives,
(6) (*a*) for the *ka* of the coppersmith Ankef, born of Kenyuyt, (*b*) for the *ka* of Yfert, born of Ameny,
(7) (*a*) for the *ka* of Yupy, born of Yfert, (*b*) for the *ka* of Meres-Tekh, born of Yf[ert],
(8) (*a*) for the *ka* of Ātet, born of Yfert, (*b*) for the *ka* of N . . . .
(9) (*a*) for the *ka* of Senenu, born of . . .
(10) (*a*) for the *ka* of R . . .

FIG. 2.—STELE OF THUY.

II. Round-topped limestone stele. Presented to the British Museum by J. B. Collings, 1836. Date, late XIIth dynasty. At the top the *shen*-sign between two sacred eyes. To left a male figure, seated, holding lotus; in front of

him a woman standing and pouring a libation. Above the man is his name, Thuy; above the woman, Yb-Ymentet (?). Below are three horizontal lines of inscription:—

(1) May Osiris, this Ruler of Eternity, give a royal offering.
(2) May he give funeral offerings of bread and beer, oxen and birds [for] the *ka* of Thuy.
(3) [illegible].

III. Broken limestone stele. Presented to the British Museum by J. B. Collings, 1836. Date, early XVIIIth dynasty. Figure of enthroned Osiris,

Fig. 3.—Stele of Tetaty.

before whom is a table of offerings and a kneeling worshipper. Below are three horizontal lines of inscription:—

(1) May Osiris Khenti-Amentiu [give a royal offering], may he give the sweet breezes of the north,
(2) cool water, wine, milk, alabasters, linen . . . all things good and pure,
(3) for the *ka* of the scribe Teta-ty, justified, lord of worth.

IV. Round-topped stele, lower part broken away. Date XIIth dynasty. At the top, *shen*-sign between two sacred eyes. To the left, a woman kneeling on a low chair and holding a lotus; above is her name Har-em-hesit. In front of her is a table of offerings. Facing her is a standing woman, over whom is the inscription: "By her sister who causes her name to live, Nub-nefert." Below only one horizontal line of inscription remains: "May Osiris, Ruler of Eternity, give a royal offering. May he give the funeral offerings of bread and beer, oxen and birds, and all things. . . ."

V. (From sketch). Broken stele. Above, crowned and enthroned Osiris, before him a table of offerings. Below are two horizontal lines of inscription :—

(1) . . . May he give the funeral offerings of bread and beer, oxen and birds, all things good

(2) . . . [illegible as drawn].

In 1926 Professor Zammit opened an unrifled rock-tomb at Nigret, near Rabat. (Plan and section, fig. 5.) The pottery was intact, with the exception of one jug, which may have been placed there when already broken, as no sherds could be found.

Fig. 4.—Stele of Har-em-Hesit.

Taking the vessels in the order in which they stand in the photograph (fig. 6) from left to right, the measurements are as follows :—

1. Oval jar with handles on shoulder, height 38 cm., width 27 cm.
2. Double-spouted lamp, diameter 13 cm.
3. Standing vase, with handles well below shoulder, height 40 cm., width 32 cm.

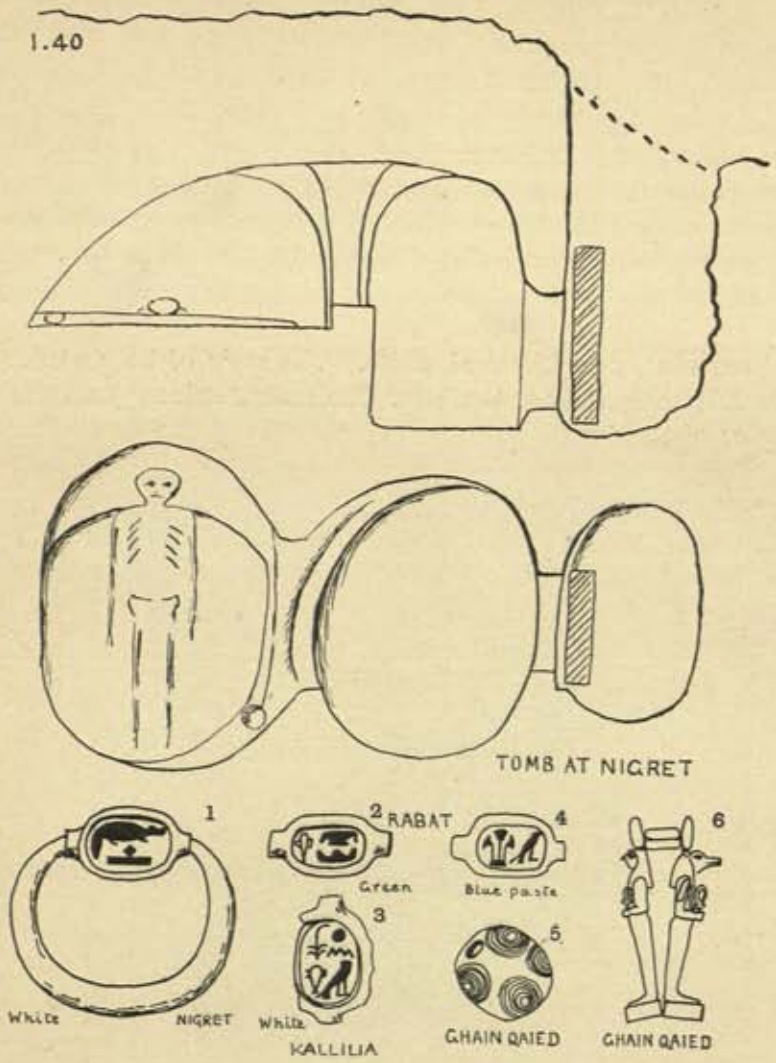


FIG. 5.—TOMB AT NIGRET AND SCARABS.

FIG. 6.—POTTERY FROM TOMB AT NIGRET.

4. Broken jug, height 18 cm., width 16 cm.
5. Patera, with handles, diameter 12 cm.
6 and 7. Jugs, height 23 cm., width 16 cm.

The patera was found in the hollow in the actual burial-chamber, the rest of the pottery being in the ante chamber. The pottery is entirely of the type of Punic ware, hard-baked, smooth, generally with a reddish surface inclining to buff. The shapes also are essentially of Punic form.

In the dust of the burial-chamber was found a metal ring in which is set an Egyptian scarab, bearing the name Sebek-hetep (No. 1). The metal has not been analysed, but is said by Professor Zammit to be tin. The scarab has originally been blue, now bleached white. The style of both scarab and ring point to the XIIIth dynasty as the date. Professor Petrie suggests a re-use either of the ring or of the tomb.

FIG. 7.—GOLD WORK FROM GHAIN QAIED.

Two points of interest therefore arise: (1) The number of late Middle Kingdom objects found in Malta. There was a considerable amount of foreign intercourse with Egypt during the Middle Kingdom; the Cretan connection is well known, but we may have here the indication of an Egyptian trade with a more westerly region. (2) The ring being found in the dust as if lost or unnoticed shows that it did not belong to the burial found in the tomb. Professor Petrie's second suggestion is therefore probably correct, that the tomb itself was re-used. There are indications elsewhere that these rock-tombs, though usually found occupied by burials with Punic pottery, are originally of much earlier date. The ring may therefore be an indication of the period at which the tomb was originally cut, and may thus be of great importance in dating one at least of the earlier civilisations of Malta.

No. 2. Scarab set in bronze ring, found in a rock-cut tomb at Rabat Probably of the Saite period or later.

No. 3. Scarab set in bronze ring, found in a rock-cut tomb at Kallilia (see Annual Report of the Malta Museum 1916–17). XXVIth dynasty.

No. 4. Scarab set in a bronze ring, found in a rock-cut tomb at Rabat. XXVIth dynasty.

A rock-cut tomb at Ghain Qaied was opened by Professor Zammit in 1926. This had been turned over some years ago by unskilled excavators and no proper record was made, the more showy objects being distributed to visitors. Thus, the iron (?) ornament covered with gold leaf (fig. 7) which is now in the Ashmolean Museum, is one of a pair, the other being in the Valetta Museum. The tomb had clearly been used and re-used many times, for objects of more than one period were found in it, but as the stratification was not observed at the time of the first excavation and the tomb was carelessly re-filled, it is not possible to obtain the original date. It seems, however, to have been used as a rubbish pit in early medieval days, as Sicilian glazed ware of that period was found in it. The ornament in the Ashmolean Museum is of Phoenician work under Asiatic and Egyptian influence; the lotus is Asiatic in form; while the winged sun, though showing clearly its Egyptian origin, could never have been designed by an Egyptian artist. On clearing the tomb to the very bottom, Professor Zammit found a glass bead (No. 5) and a gold amulet (No. 6), both of Egyptian work. The bead is of the well-known type of greenish-blue glass with raised spots of dark blue surrounded by concentric rings of white and dark blue. The amulet consists of a figure of Horus and a figure of Anubis, each holding the *ankh* and flail and crowned with the sun-disk. Originally the figures were separate, but at some time they were rudely soldered together, back to back, so clumsily that only one of the two suspension rings is actually attached to both pieces. The figures and the bead are of the XXVth to XXVIth dynasty and are, therefore, of about the same date as the Phoenician ornament in the Ashmolean Museum.

M. A. Murray.

ERNESTO SCHIAPARELLI.

[We have been favoured with an appreciation of the late Professor Schiaparelli from Professor Tulli, which will show our readers how enthusiastically his example was acclaimed in Italy.—ED.]

ERNESTO SCHIAPARELLI, a well-known scholar in Egyptian archaeology, was one of those experts whom it is not easy to appraise in few words. His work is so profound and covers so wide a field in Egyptology, that no one can be unaware of its importance or of its high quality. Director of the Egyptian Museum in Turin, he was well able to impart such impulse to our studies that it may be truly said that his activity was bound up with that of Italian Egyptology for almost half a century—indeed, he quickly became its moving spirit.

This is a matter of only yesterday, not yet forgotten. And how can we forget it, for it was Schiaparelli who bade us scientists of Italy recognise the researches in the history and archaeology of the thinkers of Khem. In one field or another, all the young Italian Egyptologists of to-day have been his admirers, his students, and his friends. We cannot but feel it our duty to lay on his tomb, so lately closed, the wreath of our grateful recognition.

As a disciple of Maspero, he had with youthful enthusiasm initiated himself into the mysteries of the language of the Pharaohs, which he mastered so thoroughly that he could rapidly elucidate it, as though it had been his own language. And he did not content himself with reading and interpreting it, but could discriminate and criticise the sources with sagacity and competence, so as to make them agree, and draw from them unerringly the very voice of Egypt, revealing unknown pages.

His was a life of ceaseless enquiry, unwearying study and patient investigation of archaeological remains, enduing him with the treasures of knowledge, which inasmuch as they afforded a full annotation of the material he examined, were so much the more of value in throwing the newest light on the question of reflections on general problems, either making them to be understood better or subjecting them to a new point of view. Of those new views his students at Turin were well aware, and following in his footsteps soon improved themselves beyond measure in this difficult science, and became, each in his turn, exponents of it. They were helped by their master's clear exposition, which smoothed over difficulties and removed obstacles.

Before he came to Turin he was Director of the Museum at Florence, and here he already showed the same unbounded enthusiasm and indefatigable activity, occupying himself not only with the Museum, but with Egyptological studies in general. He was in touch with the principal Egyptologists of Europe, who could well appreciate his outstanding qualities, and recognise the consistent value of his works, which themselves proved him to be a man capable of interpreting the language, difficult though it may be, and of reconstructing whole chapters of history.

The friend of Egyptologists beyond the Alps, he was no less that of Italians. Here it is enough to record that he was bound in the closest and truest ties of friendship with Orazio Marucchi, Director of the Egyptian Museum at the Vatican, who added to a profound knowledge of Christian archaeology, one

no less deep of Egyptology. Those two erudite and distinguished archaeologists met at Rome in 1883 on the occasion of the discovery of the obelisk of Rameses II, which now stands between the Piazza dei Cinquecento and the Piazza dell'Esedra, not far from the railway terminus.

It would assuredly be too large a matter to speak of all Schiaparelli's works. His native land testified her affection and esteem for him by electing him to a place in the Senate, and here he was a worthy representative of the study of Egypt, which has so many connecting links with the dim past of the Latin civilization. The *Libro dei Funerali* is his greatest work, and on this masterpiece, the fruit of long and patient study, his fame rests. This work, indeed, deserves our attention, for here he occupies himself in a truly scientific manner with the ceremonies which took place in the tombs of the dead.

Only those who have some practical knowledge and experience of the difficulties which are met with in the translation of this language can measure with any approximation the labour which Schiaparelli put into such a work, admired not only among ourselves, but also by the scientists of other lands. It is a work which sums up all our knowledge of the tombs. The Egyptians were a people who thought much about the future world, and, preoccupied in these thoughts, their concentration and meditation was not unmixed with fear. He could reconstruct the funerary ceremonies which took place in the tomb, from the arrival of the mummies to the moment when the door of the room was walled up, in which the sarcophagus had been placed. This reconstruction was made from three similar examples of different ages and different individuals, the most important of which is that recovered from a sarcophagus of wood in the Museum at Turin. The purification of the statue and the mummies; the adoration of the image; the sacrifice and the consecration of the mouth and the eyes of the statue; the final purification with incense; the first deification of the dead; the presentation of offerings to the statue; the final deification of the dead, are all pages in the series of scenes in which Schiaparelli paused for a moment with the skill of a critic and the ability of an archaeologist. After all these ceremonies the deification ended, and the corpse became the habitation of the dead, which, according to Egyptian ideas, became for ever a divinity. "Thou joinest the gods and art at one with them."

Another labour lay in *La geografia dell'Africa Orientale.* Numerous monuments have given indications, scattered here and there, of ancient localities; and Schiaparelli put himself to collect, ordinate and co-ordinate these, reconstructing the general lines and particularising all the immense region, the lands stretching between the Tropics, the Red Sea, Darfur, the Equator and the Indian Ocean.

He was not new to this branch of research, for from 1892 he was occupied, in the *Memorie della R. Accademia dei Lincei*, with the discovery of geographical inscriptions in the tomb of Herchuf. The conclusions which he reached did not obtain unanimous approval, and they were received with much reserve by some Egyptologists, merely because they did not agree with more certain results, which were, however, founded on the same arguments.

Schiaparelli examined each monumental indication and he had opportunity to analyse preceding researches, undertaken by other students, particularly those of Heinrich Brugsch. His work plainly confirmed the results derived from the tomb of Herchuf and eliminated the differences which seemed to exist between those and other monuments. It would be impossible here to examine his studies on the lists of miners, or the personification of nomes; or those on the lists of

peoples, or the geographical documents of greater importance preserved from Egyptian monuments. We must refer all those who would study such a subject more closely to the mighty volumes above mentioned, of which they form a part. Space will not allow of examining his other works, but we will only add that *Il significato simbolico della Piramide* shows him as a clear revealer of Egyptian thought.

The fame of Schiaparelli rests not only on his *Libro dei Funerali* but also on the *Missioni Archeologica Italiana*, a work so rich in results in the Valley of the Queens and Deir el-Medinet. These excavations continued over twelve seasons between 1903 and 1920, and he worked in many places in Egypt. Near the pyramid of Khufu he brought to light remains of the pyramid temple, and various mastabas of the Old Kingdom ; at Heliopolis, near the Obelisk, he found important remains of the IIIrd dynasty, and traces of the predynastic age, also further north the ruins of the temple of Mnevis ; at the cemeteries of Assiut and Qau he explored the great tomb of the high-priest of Set ; in the Valley of the Queens' tombs he re-opened the splendid tomb of Nefertari, of Khaemuas and Satiherkhepshef, son of Rameses III ; in the valley of Deir el-Medinet he discovered the untouched tomb of the architect Kha ; at Gebeleyn in the Sanctuary of Hathor and the cemetery he also worked, and finally in the cemetery of Elephantine. In all these places he obtained results, which he hoped to illustrate fully, and had partly issued. Some of the results published recently had been already anticipated in outline by Ballerini in 1903, Baedecker in 1908 and 1913, Colin Campbell in 1909 and 1910. The account by the Director of the Mission, however, is the official Italian report.

This expedition has had the collaboration of able colleagues and young students; Roberto Paribeni, now Superintendent at Rome, Evanisto Breccia, Director of the Graeco-Roman Museum at Alexandria, Professor G. Marro, Rev. Michele Pizio, Padre Zaccaria Berti, Dr. Giulio Farina, our colleague in the University of Rome, Dr. Pietro Barocelli, Professor Fabrizio Lucareni, Count Alessandro Cazati, Marchese Antonio di Sovagna, Duca Tommaso Gallarati Scotti, Dr. Giacomo Bondi, Piero Molli the engineer, Count Aldobrandini Malvozzi, Francesco Ballerini, and Virginio Rosa. In the course of excavations Maspero showed his goodwill, the more so as Schiaparelli was a devoted disciple of his.

He had now merited so well of his country that a tangible token of regard was his due, and he was elected to the Senate. As a fervent and active Catholic, he, a celibate, with apostolic fervour, gave his holy co-operation to the diffusion of the Gospel among all people, even to those afar who felt the benefit. In the Senate he worthily held his seat, watchful for the good of Religion and of his country, and all respected and even venerated him. Finally, he was a true Italian, a sincere lover of his land, desiring the spread of Christianity, having strongly felt the Apostolic Missions to be beneficial to the world. Such was the illustrious Director of the Egyptian Museum of Turin, one of the finest collections in Europe.

(*Translated by Ann Petrie.*)

ALBERTO TULLI.

REVIEWS.

La Préhistoire Orientale. By J. DE MORGAN. Vol. I, *Généralités*; Vol. II, *L'Égypte et l'Afrique du Nord*; Vol. III, *L'Asie antérieure.* 8vo. 332 + 433 + 458 pp.; 56 + 455 + 380 figs. 1925–27. (Geuthner.) 300 frs.

This work by the late Jacques de Morgan is a summary of his varied researches in different countries, and of the impressions which he had gathered during much experience, together with a summary of some of his compatriots' results. The labours of other nationalities are almost ignored, and there is little of the work of the last twenty-five years which has so largely changed our conception of the past. As an outline of what had been done in the last century, especially in Western Asia, it will have a permanent use. The author was the son of a Welsh mining engineer, and had many valuable qualities in his knowledge of chemistry, geology, drawing, and exact description, which he brought into his archaeological works; but a lack of historical perspective and of systematic treatment of periods, leaves the reader much in the state of suspense of a first discoverer. In actual excavation he was diligent, and very successful in securing important objects; but the absence of systematic record of details, and of following out historical levels in cities, has caused him to leave scarcely any scientific record of value. His memory will live by his celebrated finds, but not by constructive publications—a Schliemann without a Dorpfeld. Those who remember his tenure in Egypt will know his agreeable and ready attention to the business of the department to which he had been assigned by the French Government, without any acquaintance with Egyptology, or with the country or personalities to be controlled. He was the most efficient and alert Director of the Department of Antiquities.

The first volume begins with the Tertiary periods and human origins. The account of the Ice Ages has a curious lapse in astronomy: the change of stellar direction of the earth's axis by precession is confounded with a shift of the axis in the earth itself, and glacial periods are said to be due to the Pole shifting into Scandinavia or Asia; this, again, is confused with variation in the obliquity of the ecliptic. It is assumed that the direction of the points of the compass has shifted 24° since the Pyramid building. Such ideas seem incredible in an educated surveyor. The changes of sea-level in various countries and times are described, but without any summing up of results. The Bahr-bela-ma is stated never to have held a river, but to be entirely due to wind erosion; this will hardly account for the continuous course of the channel for many hundred miles. The accounts of gravels are inconclusive, and no definite horizons of flint working were determined.

In dealing with the Pleistocene, de Morgan held that there was a great pluvial period, which largely diminished the population, and made a hiatus between the Palaeolithic and Neolithic. He gives a suggestive set of maps of the extent of six ranges of flint periods in relation to glaciation. How far the limits there shown are due to the absence of man in those regions, or to the absence of our research and record, is not hinted at. With one confession of nescience we may well agree: "We do not possess any certain connection between the facts of language and those of anthropology and archaeology, and the assimilation of the western neolithic people with the Aryans is mere guesswork. Language does not go along with the ethnic nature of a race, but with the culture both of the mind and the industries."

The source of metallurgy is then discussed. It appears to have been brought into Egypt, to Iraq, and to Elam, and the source must therefore be sought in the copper-producing lands of Georgia, Armenia, or Anatolia. In such research we should not despise legendary statements; far too much has been thrown aside of the traditions and early records, and in Egypt, Chaldea and Crete we have by further knowledge come back to accepting the accounts of early history which had been despised. " Thus in comparing the Asianic, Hellenic, Iranian, and Indian legends, we come to place in Asia—to the east of the Caspian, or on its coasts—the origins of metallurgy and of copper. Further, in the mountains of Anatolia, of Armenia, or of Georgia, was the cradle of iron-working; and in Baktria or Sogdiana (Transcaspian) was the centre from which the Aryan migrations spread into Persia and India. At all times these Transcaspian regions have been looked on by Persians as the source of their creation. The Turkoman Steppe, as it gradually dried up, became an ideal grazing land for nomads and their herds." The personal knowledge of these lands by the author gives weight to his opinions, although he had not all the facts before him that are now known.

The latter part of the first volume describes life in Kamchatka as that of Magdalenian man, and generalises about stone tools. De Morgan is against the ideas of the uniqueness of invention spread by diffusion, and justly reckons that similar causes of necessity will produce similar results. He notices also many entirely different sources of writing in different lands. Lastly, he feels strongly the inadequate time allowed for the ranges of historic changes, according to the fashionable edicts of Germany, and trusts rather to the original dating of the Egyptians and others, as concordant with the archaeological results.

The second volume on Egypt is less satisfactory; the lack of any perception of the changes during the prehistoric age (even including in that a tomb of the IInd dynasty) is to ignore what every worker on that subject accepts as evident. The former account of the tomb of Neithetep (in 1897) is here reprinted, with a few footnotes added. The ivory tablet is re-drawn, as completed by Garstang's care, but curiously it has grown a sixth larger, though both drawings are of *grandeur naturelle*. The working of granite is said to have been done by copper tools, but as that metal would be too soft, therefore it is asserted that the Egyptians must have had a means of hardening it, to equal steel. The brilliant examples of sawing and drilling by tools with set stones are entirely ignored. De Morgan is satirical about Moret's notions of turquoise serving as an ore of copper; but he is entirely out of his reckoning about the copper sources in Sinai, as he never saw the great slag heaps, but says that " I have been much disappointed because I thought to find there (Sinai) a subject of interest for a mining engineer." Had he gone to the Wady Nasb he would have seen 100,000 tons of rich copper slag, proving the great amount of copper that the Egyptians had removed from there down to about the XIIth dynasty. He is also indignant that his visit to Sinai is not quoted as the authority in *Researches in Sinai*, saying that " The conclusions of M. Flinders Petrie do not differ in anything from those which I issued in 1896." His work was not required in any way in a book reporting original work differing from his, and the conclusions from it, including the sources of copper which he could not find. He asserts that a flint knife found there belonged to the type of the Ist dynasty, though no such form has ever been reported of that age, and it is unquestionably of the XIIth dynasty, as stated in *Researches*, p. 136. He protests that he has

always acknowledged his borrowing from other publications, but he incorporates in his map the positions of monuments taken from *Researches*, and which he never saw.

The Chaldean origin of Egyptian culture is stated at full length. The points of similarity quoted for this proposition are :—Shipping [which differs, however], ribbed stone vases, animal figure-vases, game board [much later], tall ring stands, cylinder seals, recessed walls, crude brick, weights and measures [weights of Gerzean age, but no measures], adzes, sickle flints, contracted burial, and some names of vases, and corn. He concludes that the Egyptian language, agriculture, cereals, and use of copper were all influenced by Semitic sources, and that nothing passed from Egypt to Asia of such arts. This seems a solid conclusion. Lastly, Tunisian sites of flint work are described, especially at Gafsu, from which the Capsian style has been named. The Somali quartzite working is also figured.

The third volume will be the most useful. It opens with the Palaeoliths in Syria and Iraq, the Armenian sources of obsidian, the geological formation of Chaldea, and the colonisation of Chaldea. A full outline of the results at Susa is given ; the two early periods are treated separately, but there comes a qualm when two very peculiar stone vaselets of the first period (fig. 72) turn up again in a group of the second period (fig. 123). We may note that the relative age of the second period of Susa is indicated by two objects, the open-work axe (fig. 126, 2), dated to the XIIth dynasty (*Tombs of the Courtiers*, v, 28), and an alabaster vase (fig. 123, 3) like that from Harageh (xlvi, 19) of the XIIth dynasty. Yet Susa II has been set to the period of the Ist dynasty in Egypt (FRANKFORT, *Studies* II, p. 120). This form of axe has been found at Ur, dated to 2700 or 3200 by Mr. Woolley. In this connection let us remember the strong resemblance of ornament in the XIIth dynasty to that on the pre-Sargonic pottery of Kish (ANCIENT EGYPT, 1926, p. 102). These four cases seem much closer relations than any yet adduced between Egypt and the East.

After this there is a general review of prehistoric tools in India, Cambodia, Japan, Siberia and Australia, returning briefly to the Aegean (without examples). The metals are then listed, and the minerals that were used. The occurrence of nickel, arsenic, and bismuth, in alloys is unnoticed, nor the example of platinum inlay in XXVth dynasty. The introduction of iron in the west is linked with the Celtic invasions, of which a map is given. The absence of a stone age in Persia and Georgia is noted, and the early use there of copper and iron. The copper and bronze are found in megalith chambers of tumuli ; three periods of size of stones is noted, from greatest to least, corresponding with those styles of metal tools from simplest to ornate, in the same development as in Europe. Some remarks here tally exactly with experience in Egypt. " Persians, Turks, and Russians do not attach any importance to devastations made by the natives, keeping all their severity for archaeologists ; this is because Orientals consider archaeologists as mere treasure-hunters and their jealousy and cupidity is aroused." Strangely, de Morgan adopted the idea that the Ist dynasty burials were cremated (note p. 201). Though fire had been applied to some of those tombs, it was doubtless by robbers ; others of the royal tombs show no trace of fire, nor has any cremated burial been found in Egypt till Roman times. The coiled wire barrel beads are found in Georgia, like those of the Ist dynasty. Turkestan is only described from Pumpelly's work. In China there is the same style of relief lines of pattern, cast on axe-heads, as in Siberia and westward to Norway.

In Chaldea and Elam, copper is stated to continue in use till 2100 B.C., and after that a copper-lead alloy. Egypt is illustrated by a group of tools "predynastic and Pharaonic," really of about Ist to XXth dynasty, but the pottery is all of Gerzean age. Such scrappy treatment is quite futile. Similar brief views are given of the Aegean, Hungary, and Western Europe. The idea of the dolmen being derived from the mastaba is entirely set aside, as also any priority in Egypt before Asia.

The Iron Age is then reached, and the examples from Georgia and Ossetia illustrated. Lastly, the origins of writing are considered, and the independent invention of the many different derivations from picture writing. Altogether, it is disappointing to see so alert a mind not better furnished and up to date with the work of others; but as a summary of what an active worker has done in breaking new ground, this third volume will always have an interest.

Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts: 1. *The Theban Necropolis*. By BERTHA PORTER and ROSALIND MOSS. Large 8vo. 212 pp. 1927. (Clarendon Press.) 30*s*.

This elaborate work is the first fruits of an immense scheme, which will be of the greatest use to scholars, for enabling all the copies of a monument to be compared together, and showing what needs yet to be carefully copied. The present volume is one of the most difficult, owing to the great number of separate monuments, about 280 tombs, and the large amount of scrap copying that had been published. Some popular tombs, such as that of Rekhmara, have nearly 200 entries. The mode of referring to each tomb is to provide an outline plan with numbers around it, corresponding to numbered sections of the bibliography. One little omission can be found: on p. 32, the gold ring of Amenhetep I (*Scarabs* XXIV) might be included. All workers in this field, in future, will bless the diligence of Miss Porter and the munificence of Prof. Griffith.

Metropolitan Museum, New York, Egyptian Expedition, 1925–27.

This *Bulletin* is of much historical value for the XVIIIth dynasty, and also other ages. The principal matter of the XIth dynasty was the replacement of the broken walls and sarcophagus of Queen Neferu. The tomb walls are covered with the figures of offerings and coffin texts like the coffins of the Middle Kingdom (see ANCIENT EGYPT, 1926, p. 61). Many stamped cones of pottery are found in the cemetery of the XIth dynasty, and onward down to the XXth dynasty. The purpose of these has been often questioned, in spite of Rhind finding them in a row over a doorway, face outward. Now this observation has been repeated, and it is suggested that they represent the ends of roofing poles over the tomb-chamber. With these may be compared the sculpture of a row of roofing poles at Abadiyeh (*Diospolis* XXV). Another of the boards for 5 game has appeared, to add to those figured in *Sedment* XXII. A remarkable tomb full of bodies of soldiers killed in battle, and swathed in linen, bearing the makers' names of XIth dynasty, seems to be the result of an attack on a fort, where the wounded left behind had been clubbed by the enemy. They were probably the victims of an attack on the frontier of the Xth dynasty, not very far from Thebes, or they would have been buried north of Thebes. The occupants of most of the great tombs of the XIth dynasty were identified in the inscriptions on the rocks at Shatt-er-Rigaleh, already published in *A Season in Egypt*.

In clearing away some fallen stones at the east wall of the Hatshepsut temple, another foundation deposit was found (the sixth recovered since the work of Dr. Naville), and this was notable for containing nearly two hundred scarabs of the finest work and condition. These had the names of Hatshepsut alone, H. with Tehutmes III, Tehutmes III alone (Men-kheper-ra and Men-kheper-n-ra), and Neferu-ra, as royal daughter or a royal wife. Such was the status of these persons at the founding of the temple. This deposit was only a few inches under the carriageway. A piece of a food jar found under the embankment of the temple is dated in the year VII, so the temple was not started till 1509 B.C. if dated by Hatshepsut, or 1496 B.C. if dated by Tehutmes III. The plan of the temple, and its intersection with the court of Mentuhetep, are here illustrated. It may be said that the facts now known of the history leave no ground for the elaborate theories of family revolutions which Berlin has insisted on for many years past. The position stated in the *Student's History* accounts for all the certainties of the case.

The examination of the quarry just outside of the enclosure of the temples at Deir el-Bahri led to clearing it all out, removing the great rubbish dump of Naville, and finding under it the entrance of the tomb of Senmut, the architect. A passage 250 feet long led into a chamber covered with funerary texts, and scenes of Senmut adoring the name of his Mistress. Though his sculptured face had been erased, yet a vivid little sketch of him remains—a small-built man with a wrinkled face. On the ceiling is finely figured the star map, the earliest such known. Senmut had tunnelled for his tomb so as to come beneath the courtyard of the temple which he designed. The conclusion is that Senmut first had carved his well-known tomb high on the hill of Qurneh, during the life of Neferu-ra. Later he made a tomb almost concealed at the bottom of the quarry, at about the 16th year, and he died about the 18th or 19th year. In the quarry-tomb his portraits are defaced, while Hatshepsut's name remains; he, therefore, died under the vengeance of Tehutmes III, while Hatshepsut was still alive and respected. All of the other great men of Hatshepsut were removed one after another; lastly Hatshepsut vanishes. Then her name and figure were erased, and her statues and sphinxes broken up and thrown into the quarry hole. To recover them not only Naville's dump, but also the tourists' rest-house, had to be removed by Mr. Winlock. There he has recovered an immense amount of sculpture which will take long to reconstruct. We cannot part from this record of important discoveries without congratulating Mr. Winlock's insight and perseverance, however much we may regret that all his results had not been attained by the English expedition which deserted the site.

The work of copying the Theban tombs has continued under the care of Mr. and Mrs. Davies. A new study is given here of the varieties of dances figured in the tombs, and the acrobatic postures. Many scenes which have always been looked on as games and sports of the boys, or high kicks of dancing girls, are here all claimed as having a religious purport. A list is given of tombs that have been copied; 32 completely photographed, and the most part done in colour, and 39 others partly copied in colour.

The Altars of the Old Testament. By HAROLD M. WIENER. 34 pp. (Hinrichs.) 5s.

This is a careful study on the right lines; as the author says, "Religion, philology, archaeology, the comparative study of ideas and institutions, biblical criticism, have each and all influenced man's conceptions of the meaning of

particular passages. . . . The texts must first be allowed to speak for themselves, and only thereafter can we call in other informants and test and amplify the knowledge we have derived." The legal maxim must be followed that contemporary explanation is the best and strongest in law. The four types of altars distinguished are (1) the piled stones or earth altars, (2) the horned altars of sacrifice, (3) memorial altars, (4) altars of incense. Forms 1 and 2 were in use at the same period, according to local conditions. No. 1 might be either of one stone or of many, but essentially it must be of natural and not artificial form. It might be erected in any place. The victim was to be slain on the altar, and the sacrificer might be any layman. This is the primitive ritual. On the contrary, the horned altar of stone or of bronze was artificial, and was only in a sanctuary, or only in the central sanctuary. The victim was slain by the altar and portions were burnt on the altar. The memorial altars were rare, and only of early period. The altar of incense was horned, as were the small pottery altars of incense of Roman date in Egypt. The whole of the references to altars, and their use, is discussed in this article, which must be read by any one dealing with the subject.

The Epic of Gilgamesh. By R. Campbell Thompson. Large 8vo. 60 pp. (Luzac). 1928. 10*s.* 6*d.*

This classic story—the Odyssey of the East—has been gradually recovered by various editors; fifty years ago George Smith wrote of Izdubar, since read as Gilgamesh, while Hasisadra appears now as Uta-Napishtim. The many different sources, early and late, have been edited with some new material by Dr. Campbell Thompson, and he has taken the blank verse hexameter as the frame which best fits the dignity of this hoary literature. It is recognised as being a group of various myths about this early *tyrannos* of Erech, who appears so often on the cylinder seals; perhaps the noblest figure of him, trampling on the bull of Ishtar, and raising a lion overhead to dash it down, is that on the bronze shield from the Idaean cave in Crete, so far did the epic travel. The curious mixture of wild life and the city, of primitive vigour and philosophy of life, points to an overlaying of varied periods. The general effect of this translation is as easy as the allusions and the strange atmosphere will allow; it can now take its place in the Valhalla of heroic legend with the Battles of Horus, the valour of Arjuna, or Beowulf and the early sagas. The entirely different air from the early Egyptian tales shows how separate the growth of ideas was on the Nile and the Euphrates.

Ancient Chinese Terra-cotta Figurines. By Kosaku Hamada. Vol. I, Japanese text and xiii pp. English titles of plates; Vol. II, 91 photograph plates. 8vo. 1927. (The Toko-shoin, Tokyo.)

Again archaeologists have to thank Professor Hamada for a beautifully illustrated work, with some English text. The statuettes are about 0 to 1000 A.D. The earliest ones are blocked out in a stiff but spirited manner, and two horses' heads (XCI) are boldly wrought; by the Tang period (200–600 A.D.) the finest work was reached, as in two figures of women on horseback (XXVIII, XC), the latter in vigorous action swinging a stroke-in pole, leaning sideways. There are links with western work, as the long skirted coat and tall cap like Kadphises' (XLIV), the humped ox (LIV), the camel (LVI), the house models (LXV, LXVIII–LXX), model fire-places (LXXII–III), the chariots with wheels of sixteen spokes (LXXVI–VII) or 24 and 26 spokes (LXXVIII–IX). These figures are in the Archaeological Museum of the Imperial University, Tokyo. We hope to see many more volumes from that source.

JOURNALS.

Revue de l'Égypte Ancienne, 1927.

DARESSY, G.—*Deux statuettes funéraires.* These figures are of the usual blue colour of the XXIst dynasty, for Amenemapt, a prophet of Amen, over the scribe-decorators of the temple of Amen, and they have a line of the Vth chapter of the Book of the Dead.

Sur le Naos du Senusert Ier.—This monument has been noticed in the *Annales*. It was found south of the VIIth pylon of Tehutmes III. It is proposed that this was not made by Senusert I, but that it was made early in the XVIIIth dynasty to contain a statue of Senusert. The engraving of the figures of the king on the side is certainly of the thin wiry style of Tehutmes and Hatshepset, and not like the deep cutting of hieroglyphs of Senusert I. It was exposed to the erasure of the Amen figures by Akhenaten, and the re-engraving by Sety I.

Archaeologia. 1928.

BECK, H. C.—*Classification and Nomenclature of Beads.* This paper provides a systematic scheme of forms of beads, especially of the unusual fancy varieties. In fact, the commonest little tubular bead does not seem to be registered. The plates will be of much use in defining the forms, as there is no variety of specific names in use ; but for pendants and amulets the name of each kind will be easier to remember than any arbitrary numbering.

Palestine Oriental Society, VII. 1927.

CANAAN, T.—*Nature and Character of Mohammedan Saints.* This long and detailed paper touches archaeology closely in the description of female saints connected with trees. " All holy trees, which have as their own name the simple name of a tree, are thought to be inhabited by female saints. . . . Investigation will show that every such tree is believed to be the habitation of a spirit of a saint, who appears on different occasions to different people. In many cases the expressions *sittna* (our lady) and *esh sheykhah* are used, instead of *waliyeh*. The female saints are believed in popular Palestinian religion to . . . heal the sick, help the oppressed, guard the property of their neighbours, protect the village from its enemies, etc." All this may well be credited as carrying on the worship of the local goddess in the *asherah*, or sacred tree. (*See* pp. 40–44.)

ALBRIGHT, W. F.—*End of the inscription on the Ahiram sarcophagus.* In this paper, the date of this earliest Phoenician writing is considered. The pieces of canopic jar, with name of Ramessu II, do not enforce a contemporary date for

the Phoenician, as they might have been old when placed there. The similarity of the writing to that of the Xth century makes it less likely to be as early as Ramessu. The names Ahiram and Itto-baal are known back to the Xth century but are not on the Amarna tablets. Zakar-baal is found at 1100 B.C. Also it is probable that Phoenician came into use after cuneiform of the Amarna age had died out. The pottery in the tomb is not decisive, and Pére Vincent would place it merely between 1600 and 1200 B.C. The closer dating reached at Gerar might here be of use. So Dr. Albright, after all, places the inscription at 1200 B.C., with limits of 1250 and 1125, that is, at the beginning of Ramessu III, or between Ramessu II and Ramessu XI.

WIENER, H.—In a review of L. ROST on *Die Überlieferung von der Thronnachfolge Davids*, there is the interesting conclusion that Nathan the prophet was the compiler of the history from Gideon down to Solomon, writing in the interests of the Davidic house as against Saul.

Journal of the Society of Oriental Research. April, 1928.

MERCER, S. A. B.—*A Study in Egyptian Religious Origins.* Here, as in Professor Moret's book, the sources are literary, with little regard to the archaeological facts. Skeletons are said to show three types of people: Mediterranean, Semitico-Libyan, and Semite, in early Egypt. By the portraits, there were half a dozen types concerned: by the figures there were almost as many, steatopygous, two Badarian, long-haired Amratian, long-bearded Amratian, all before the middle prehistoric. Predynastic Egypt was not " occupied by two peoples," but by half a dozen or more, very different in physique. It is only by taking the physical facts in their ascertained order that we can ever have a framework for adjusting the relics of tradition and myths. As may be seen in another page of this number of ANCIENT EGYPT, the Osiris worship goes back to the Badarian stock, three layers before the dynasties. The geographical distribution of the worships of the gods gives further light on the early religion (ANCIENT EGYPT, 1917, p. 109). For the religion of primitive times, the relics in the Book of the Dead should be studied, such as the hymn to Nut. This worship aimed at union with the god for the future happiness, as also in the simple phrases of the early cylinders before the Ist dynasty. In the above article the nome signs are mainly relied on to preserve the early history and religion, undoubtedly valuable, but needing linkage with actual remains.

LANGDON, S.—*The Silver Standard in Sumer and Accad.* This paper gives several early prices of goods. Ewes and lambs, ½ to 1 shekel, rams 3. The relation of values of metals was, silver to gold, 1 to 3 up to 1 to 12; lead to silver 1 to 10 or 15; copper to silver, 1 to 360.

Museum of Fine Arts, Boston, Bulletin. December, 1927. This contains photographs of early Indian pottery figures, dated from 1000 to 300 B.C. They have no connection with western figures, but appear to be early stages of the well-known stone carvings which followed.

The Egyptian Department has been increased by the granite sarcophagus of Queen Meresankh II, found by Dr. Reisner at Gizeh. There is also a large quantity of Meroitic jewellery and deposits, from his work.

Syria.

VI, p. 4. SIX, J.—*Glyptique Syro-Hittite.* Among the examples there are one of the style of Khondy, a row of linked S-spirals, and a three-thread plait.

VII, p. 2. DUNAND, M.—*Objets provenant de Saida.* A beaten copper vase 9½ inches high and 4·3 inches diameter, with a long wide neck, has the name of "Aohmes, beloved of Amen-Ra, Lord of Thebes." Probably this was part of the Assyrian plunder of Thebes. A fragment of a green glazed sistrum of Aohmes is also at Saida.

VII, p. 3. The *Khopesh* from Byblos is described, and a cylinder with *nefer* and scrolls.

Syria. Tome VIII, 3me fasc. An article relating to Egypt is the discussion by M. Dussaud on the Egyptian list of names of Syrian peoples or places in the XIth dynasty, inscribed on a jar. Of these twenty-one names Sethe has identified six, and Dussaud proceeds to deal with nearly all of them, as well as the names of chiefs connected with them. This must be a main source for the early identification of names.

In the same number is an account of the results from the mound of Neirab, which is without any distinction of town-levels or successive periods, mixing together objects of more than a thousand years, a terrible example of the wreck of a site. "It seems, so far, that one may discern in the tell two very distinct stages," is the only perception of time.

Palestine Exploration Fund, Quarterly Statement. April, 1928.

The Museum Journal. Philadelphia. December, 1927.

ROWE, ALAN, *Excavations at Beisan in* 1927. On reaching the level of Tehutmes III, two Canaanite temples have been unearthed, the (southern) larger one for "Mekal the god of Beth-Shan," as he is named in Egyptian writing; the smaller one for his consort. In this north temple of Tehutmes was a pottery bowl with a serpent in relief on it. Beisan was known to be the site of a serpent cult. In Babylonia, Shakan or Sha'an was a serpent deity, and such seems to be the origin of the name of Beth-Shan. In the southern one the usual *matzebah* pillar stood with a libation bowl, and an altar for sacrifices. There were many votive objects, such as a Hittite bronze dagger, an amethyst scarab of Senusert I, and a panelled altar-stand of basalt. In the level just before Amenhetep III was a regular drain laid with pottery pipes having two handles. In the level of Amenhetep III are three long streets with walls about 6 feet high. Also the head of a standard of Hathor, in bronze, with gilt face. Two fine cylinders were found, one of about 1300 B.C., the other Hittite.

AFRICA, *Journal of the International Institute of African Languages and Cultures.* Vol. I, No. 1. 8vo. 144 pp. 1928. (Oxford University Press.) 6*s.*

This new journal deals with the many difficult questions of the contact of different forms of thought. The nature of text-books for teaching are dealt with by the Council. The need of touch with African, and not European, ideas, the use of folk-lore and traditions, the treatment of the religions, and the use solely of African pictures, are among the needs considered. The questions about the use of African music are summed up in three possible lines of action; to teach

Negroes our songs, which would become a burlesque; to lead them to compose on our lines, which would stamp out their natural expression; or to encourage the native way, which naturally links with dancing—and what of religious services?

Primitive law is studied. "It directs how individuals and communities should behave towards each other," it is constructive and not deterrent. "Every individual has his line of ancestors instructing, guarding, or punishing him, and insisting on conformity and obedience. All his acts must tend towards the common good. He must conform, or the community will have none of him."

Anthropology and missions open another problem. "The direction of modern thought is 'the retention of all that is best in the African's own past culture.' The main difficulty is that we and the educated African alike know so little of what that past really was." "Our ideal is not a Christian world made of a uniform pattern throughout, but one that preserves within its unity all the diversities that the Almighty has given to the individual people . . . It implies not a paganization of Christianity for the purpose of making it easier to Africans, but the Christianization of everything that is valuable in the African's past experience, and registered in his customs."

The orthography is also dealt with. There is the absolute necessity of representing the differences that an African makes between sounds, though not always obvious to us. The need of more signs than we use is not well met by diacritical marks, which escape the general group-view of a word. The top of a line of print is more distinctive than the bottom. Diacritical marks are an abomination because they wear and break away in use; as a dotted letter must have an entire new type it may as well have a distinctive form. The loss of some Anglo-Saxon letters is much regretted as we need them now.

Every good wish for this enterprise for Africa, under the skilful direction of Sir Frederick Lugard.

NOTES AND NEWS.

THE exhibition of objects discovered at Beth-phelet in South Palestine, dating from 1500 to 500 B.C., will be held at University College on July 6th to 28th, and the evenings of the 10th and 20th.

The volume *Gerar* is now issued, with 72 plates, giving full detail of the previous year's work of the British School. The extensive series of dated pottery make this a needful book of reference for Palestine archaeology.

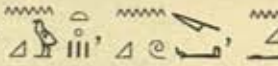
We regret that in our last number the figures 1 on p. 13, and 3 on p. 15, were not acknowledged as having been copied by the kindness of the author from *The Holy City of Trèves*, by Egid Beitz, translated from the German by L. B. Ellis; published by Beuno Filser, Augsburg.

ANCIENT EGYPT.

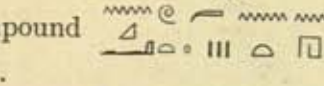
AN ANCIENT EGYPTIAN KNIFE IN MODERN EGYPT.

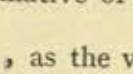
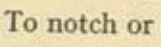
In an article in the *Acta Orientalia* (1928, pp. 288–304), I have treated exhaustively of the Coptic word ϵλκω and variants, meaning the fruit of the sycomore (*Ficus sycomorus* L.). My results are based almost entirely on a fact well known to all Orientals and to botanists. A few days before the fruit is ripe the peasant climbs the tree and cuts or notches each individual fruit. By this method the insects (*Blastophagae sycomori*), which breed in sycomore figs, are completely destroyed. A few days later the fruit is picked when it has developed its flavour and sweetness.

For the details of proof I must refer the reader to the article mentioned above. Here I can give only the most important results:—

(1) ϵλκω (and its variants) =  , *e.g.*:—

nḳw·t = Copt. elḳṓ [wet] ϵλκω, ϵλκο-ϲ, λκο-ϲ.
nḳw = ,, elḳṓ [we] ϵλκω, ϵλκο-ϲ, λκο-ϲ.
nḳ^{c}wt = ,, elḳṓ [ˈwet] ϵλκο.

(2) For the meaning of the Egyptian *nḳ^{c}w·t* and its variants, compare the compound  = the *nḳ^{c}w·t* of the sycomore tree.

(3) *nḳw·t*, *nḳw*, *nḳ^{c}w·t* means "the notched" or "the cut" (*i.e.* the fruit). This explains the determinative of the knife in  and the bird's claw in  , as the verb has the meaning of "To notch or cut."

(4) On the ancient Egyptian monuments sycomore figs are constantly represented as notched or cut.

(5) Amos vii, 14, בולס שקמים = *κνίζων συκάμινα* (LXX) = *vellicans sycomoros* (Vulg.). The Hebrew בולס is *ἅπαξ λεγόμενον*; but it is fully explained by *κνίζων*, *vellicans* = Notched, cut. Therefore Amos vii, 14, must be translated: "But I was a herdsman and a cutter of sycomore figs."

After my article had appeared, I bought from a native gardener in Old Cairo the knife here figured, which is used exclusively for the notching of sycomore figs. The actual knife is in the form of a broad ring sharpened on one side and set in a wooden handle. The gardener gave me the following details: "Before I begin the work of cutting the sycomore figs, first of all I sharpen two similar knives. Then I climb the tree. As there are innumerable fruit on the tree, I must work quickly. I take therefore a knife in each hand, that is when the form of the branch offers sufficient hold."

This form of knife, as I have shown, is well known among the fellahîn throughout Egypt wherever the sycomore grows. It must also have occurred in ancient times; this is certainly proved by the form of the cut in the representation of the sycomore-fruit, , for the crescent-shaped cut shows the circular form of the knife.

It would be interesting to know whether any collection possesses a similar knife such as was used by the ancient Egyptians, and the prophet Amos. At all events, we have learned of an ancient Egyptian practice which has remained unaltered to the present day.

LUDWIG KEIMER.

CARES OF ARCHAEOLOGICAL DISCOVERY.

THE casual reader looking over a volume on excavations may not at all realise what goes to the making of it. There seems a kind of natural conclusion that if the things were there to be found, of course they would sooner or later appear in print. After securing adequate funds, and making sure what supplies there are for the work, the choice of a site is all-important for results; excavators have been known to dig and find nothing. Then the working staff of heads and hands has to be chosen, and led by careful training into the lines required. The mode of record must keep note of every point which will have to be considered later, and not omit some crucial detail on which the results depend. Everything has to be secured from the work and kept safely; a constant watch on the work is needful to prevent the removal of some necessary part of the evidence of position. The plans, drawings, and photographs must be kept up to date, and not allowed to get into arrears. The daily roll-call and weekly pay-night occupy hours of attention. All this is only the first half of the work.

After return to England, there comes the preparation of the published account, without which the work is on the level of mere plundering. Full observation of details must have been made, but "the notebooks must not be emptied on the head of the public." The material must be tabulated, and the evidence for conclusions fully brought forward; the comparisons with other discoveries must be stated. The whole results must undergo arrangement for easy reference, and text must be connected with plates. The main interests have to be put forward, to show in what way the researches have enlarged our vision. To publish efficiently, the technical intricacies of management of plates and printers must be mastered.

All of these business details have to be learnt, like any other business, profiting by the errors and experience of the past. The training of men and women to succeed properly in all of this is a matter of years, and it is the duty of the British Schools of Archaeology in each country to provide this training. The School of Archaeology in Egypt has been the field of experience for nearly all the British subjects employed in such affairs in Egypt—from Directors of the Museum down to helpers in the field. Such training cannot be carried on without large expenses for travelling and maintenance, and our liabilities in this service alone are much over £1,000 a year. There has lately been an article by a high official, encouraging men to look to archaeology as a profession, and it is the necessary training which has been the special care of the British School of Archaeology in Egypt for twenty-four years. Scholarships for helping students forward are greatly needed, and a Scholarship account is now opened for the purpose. Contributions or donations for a capital account are a necessary step, and response is invited to our appeal for this much-needed assistance to research.

Sums sent in to H. Petrie (Lady), University College, Gower Street, W.C.1, will be acknowledged by return of post and listed in our next issue.

FLINDERS PETRIE.

A SPIRAL DESIGN IN PREDYNASTIC EGYPT.

THE jar illustrated in fig. 1 is a fine example of the decorated pottery of the Middle Predynastic period. Height, 8½ inches. The design is of a more purposely decorative kind than is usual, the large "aloe-plant" illustrated being symmetrically balanced by another on the side not shown. The latter has only one flowering branch, bending over to the right; its spikes are joined so that the branch looks like a much-elongated ear of wheat. The empty spaces on the side not illustrated are filled with the usual S-shaped elements in rows, and with the disputed object, sail or stretched-out skin, between two objects resembling knapsacks, as shown in Pl. XIX of *Prehistoric Egypt*, No. 41U (in bottom right-hand corner). The three semicircular designs of serrated loops are placed very exactly, as are the similarly constituted lines round the top of the jar, forming with the two large "aloe-plants" a very pleasing design. The artist was indeed skilled.

But the most interesting detail is the design of intertwining spirals, shown in fig. 2. It is very carefully worked out, with clean brush-strokes, skilfully joined, clearly visible in the original. It consists of a single coiled line starting at the middle of the right-hand side; it would seem that the artist, impatient with the usual patchy decoration of concentric circles, had contrived, in this manner, the semblance of a pair of such circles conjoined. He probably arranged the design beforehand with a coil of rope; perhaps a curious mind, playing with such a coil, was struck with its possibilities for decoration and, on this jar, put the idea into execution.

This design is, I believe, unique in this class of pottery; though I have made enquiries of various authorities, I have not heard of another. In any case, it is exceedingly rare; the artist who painted it must have possessed skill beyond the ordinary, otherwise we must surely have met with other examples in some quantity. It is strange that we should have to wait till the period of the Middle Kingdom before meeting again with anything like this design.

It should, however, be noted that another example of spirals in decoration occurs in Mesopotamia in very early times, for last winter's excavations by Mr. Woolley at Ur, on behalf of the British Museum and the Pennsylvania University Museum, brought to light, from the grave of Queen Shub-ad, a small gold seal with interlaced spiral designs on its face which gave to the face its quatrefoil outline. A drawing of the design is given in fig. 3.

It seems that, in the presence of these two objects, theories as to the origin of spiral designs will have to undergo some modification.

The jar was bought in the winter 1926–7 at Luxor, where many predynastic objects were on sale at the various dealers', and still more were kept back in some neighbouring village, as store from which dealers could replenish their stocks. Evidently there had been great secret looting of some newly found predynastic cemetery, whose site one could not, of course, learn easily; queries only resulted in the conventional answer of "Gebelein." All this was changed last winter; stocks had been emptied, and prices, which had been very moderate, soared high.

G. D. HORNBLOWER.

FIG. 2.—DETAIL OF PREDYNASTIC SPIRAL.

FIG. 3.—SPIRAL FROM UR.

FIG. 1.—JAR OF DECORATED POTTERY, MIDDLE PREDYNASTIC PERIOD.

NEOLITHIC POTTERY FROM THE NORTHERN FAYÛM.

INTRODUCTORY.—Since the preparation for adequate publication of the extensive and varied information collected in three seasons from the northern Fayûm must be unhurried, it has seemed desirable to release in advance an account of the prehistoric pottery there obtained. For this pottery constitutes an entirely new class of wares, probably actually ante-dating any yet known from the Nile Valley proper, and, in any case, on its own internal evidence, belonging to a true Neolithic culture-status. Those unfamiliar with the evidence are referred to preliminary accounts in *Journ. Roy. Anthrop. Inst.*, Vol. LVI, 1926; *Man*, October, 1925, and July, 1928; and *Antiquity*, September, 1927. A summary of the geological evidence will be found in the *Geological Magazine*, September, 1927.

Since this paper was written, Dr. Junker's most interesting discoveries in the Western Delta have been published (Akademie der Wissenschaften in Wien, Denkschriften 68, Band 3, Abhandlung). Both flints and pottery make it clear that the Delta site at Merimde belongs to the Fayûm midden culture. It would seem incidentally to confirm my division of the Fayûm culture into an "A" and a "B" period, based both on an exhaustive study of lacustrine levels in relation to some thousands of implements and upon the contents of the middens (see *Man*, July, 1928). The flints figured from Dr. Junker's site belong exclusively to those I assigned to the "A" period.

The Fayûm pottery was found, with four exceptions, during the seasons 1924–5 and 1925–6, when the work was performed on behalf of the British School of Archaeology in Egypt. Investigations were continued in 1927–8 under the aegis of the Royal Anthropological Institute; but further advance in prehistory was seriously crippled by the intrusion of the Oriental Institute of Chicago, who had gained a foothold in the area of our researches during our temporary absence; consequently four more pots only are added to those previously found, and these not of new forms.

SOURCES.—The bulk of the material came from a large midden settlement, Kom W, some 600 by 400 feet in size and about 5 feet deep. (Pl. vi, 1–4.) The contents of this mound were almost entirely of the earlier Neolithic or Fayûm "A" period. Fifty-one pots from this site are here figured and described; about thirty-four others, too much disintegrated to preserve permanently, were recorded: none, however, was rejected unless of repetitive form. Paraffin-wax had frequently to be used *in situ* as a consolidating agent. Other vessels came from inside straw-lined granaries: these are better preserved. Some large and fragmentary jars of the type figured 41 were also found in the granary area, standing on their bases, the rims just beneath surface level between the silos. Pl. x shows one such jar, the upper half of which had perished, found standing upon a platter of wheat-straw. Finally, a few more were found, singly, in other parts of the desert.

CLASSIFICATION.—The forms may be grouped under five headings :—

(1) Small bowls and cups (Pls. i, 1–23 ; vii, 1–8, 11–13).
(2) Cooking bowls or pots (Pls. ii–iv, 24–45).
(3) Pedestal cups (Pls. v, 50, 51 ; vii, 9).
(4) Cups with legged bases (Pls. iv, 46 ; vii, 10).
(5) Rectangular dishes with " peaked " rims (Pls. v, 47–49 ; viii, 1–3).

GENERAL CHARACTERISTICS.—All are hand-made, in coarse clay, with chopped straw as a *dégraissant*. Unequal and insufficient firing has produced a grey mottling on the red pots ; and the core is black in nearly all cases, soft, and readily disintegrated. A symmetric outline is rare. The rims are straight-lipped without curve. Bases in classes 1 and 2 are rounded or flattened, never pointed. The combination of organic matter characteristic of midden earth, with the all-pervading salt of the Fayûm desert, produced conditions inimical to the preservation of texture ; few retain their original surfaces.

FINISH.—Undoubtedly many of the pots were rough-faced and devoid of slip or burnish. But it is possible that some of those I have thus described were originally provided with a slip : No. 2 on Pl. x shows this finer coating in the act of peeling off under the action of salt. It is clear moreover that both a polished ferruginous wash and a burnished black finish were frequently used. Analyses will appear in the final publication.

(*a*) *Red Polish.*—Class 5 in particular is associated with a thin ferruginous slip, polished, and of a purple-red colour similar in appearance to the older Nile Valley predynastic wares, though the paste of those is hard and compact. Of the three complete specimens (Pls. viii ; v, 47–49), one only, it is true, retains the slip which is confined to the interior (Pl. viii, 3). The others, however, are much damaged by exposure, and my belief in their original similarity rests on the fact that of the thirty-six sherds belonging to this type of dish collected from Kom W, a fair number still bear on the interior the polished-red surface. Specimens of the characteristic rims of these dishes are seen in Pl. xi, 1–10. Amongst other complete pots, a red polish occurs in four instances only, viz., the cooking-pots (Pls. ii, 27, 30 and 31 ; iv, 43). In addition, forty-two red-polished sherds, not clearly belonging to class 5, were found in Kom W.

(*b*) *Black Polish.*—This is rare. The small bowl of class 1 (Pls. i, 22 ; vii, 5) is the only complete specimen ; the polish is on the exterior. The sherd (Pl. xi, 11), from a granary, belongs to a similar globular form, and is highly polished. Three other fragments—and ten only were obtained in all—are figured 12–14. The interesting studded rim (Pl. ix, 2) belongs also, I think, to this category. I publish the little pot (Pl. ix, 1) with some diffidence, without assurance of its period. Except for its black polished surface, it conforms to nothing either from the middens, or from Nile Valley sites of any age. It was found on the surface west of Dimê, near a " Neolithic " site.

(*c*) *Hand-smoothed.*—A few sherds were found, such as Pl. xi, 19, which, though bearing no secondarily applied slip, were smoothly finished, more probably with a wet hand than with a shell or other implement.

FORMS.—*Classes* 1 *and* 2 are of the simplest description and need no comment. Forms such as these, common to all very primitive ceramic development, are useless as evidence of relationship. It will be noticed, however, that the vessels (Pl. iv, 44, 45) have footed bases ; the material is at present too scanty to admit of their removal into a separate class.

Class 3 (Pedestalled Cups) is very important, and suggests the prototype for those rare and early Nile Valley predynastic vases, figured in *Prehistoric Corpus*, F 19^a, 19^b, 27; C 39^I, 40^I. One complete specimen (Pl. vii, 4) now in the British Museum, portions of two others and eight bases were found. Dr. Junker, *op. cit.*, Pl. xix (a), 1 and 2, figures the bases of two similar pedestal cups from the Western Delta. (The occurrence of this form in the Middle Neolithic stratum at Knossos affords yet another instance of cultural relationship between Libya and Crete.)

Class 4 (Legged Cups) is poorly represented; the miniature vase (Pls. iv, 46; vii, 10), now in the British Museum, is of the "mud-pie" variety; the bases of two vases, each with four rudimentary knobs, were, however, also found. The type is represented in the *Prehistoric Corpus* by two dated examples of S.D. 35 and 45.

Class 5 is, perhaps, the most interesting of all, in so far as it appears to have no parallel in the predynastic period, though a similar form is figured in *Rifeh* (Pl. XXV, 44) of Pan-grave age. That the type was relatively common in the midden industry is seen by the number we found of fragments of "peaked" corners of the rims, *i.e.* 36, or enough for nine bowls in addition to the three complete specimens. Their red-polished surface has already been noted.

Rivet Holes.—These were not common, but nine instances were recorded. Pl. xi, 18, shows one of them.

Decoration.—No trace of incised, combed, or painted pottery was found. The studded rim (Pl. ix, 2) came from Kom W: a close parallel from Badari is photographed with it (Pl. ix, 3) for comparison.[1] A rough red sherd with a "boss" is figured (Pl. xi, 20). (Dr. Junker figures similar sherds, *op. cit.*, Pl. xxii (a).) The little black polished pot (Pl. ix, 1) of uncertain age is decorated with incised punctuations.

Inventory.[2]

Pl. I, 1; vii, 12. Kom W, I 86/2.—Bowl in rough-faced pinky-grey ware; smoke-blackened base; very asymmetric; rim diameter about 5·5 by 6·3 ins.; thickness at rim about 0·4 i. Lying at 30 i. beneath the surface, inverted, and about 18 i. above bottom level. (British Museum, 58694.)

Pl. I, 2; vii, 7. Upper K Granary, No. 47.—Bowl in hard rough-faced brown ware; flattened base; thickness at rim about 0·35 i. Found inside a small straw-lined silo, measuring 41 i. wide by 21 i. deep. No other contents. (University College.)

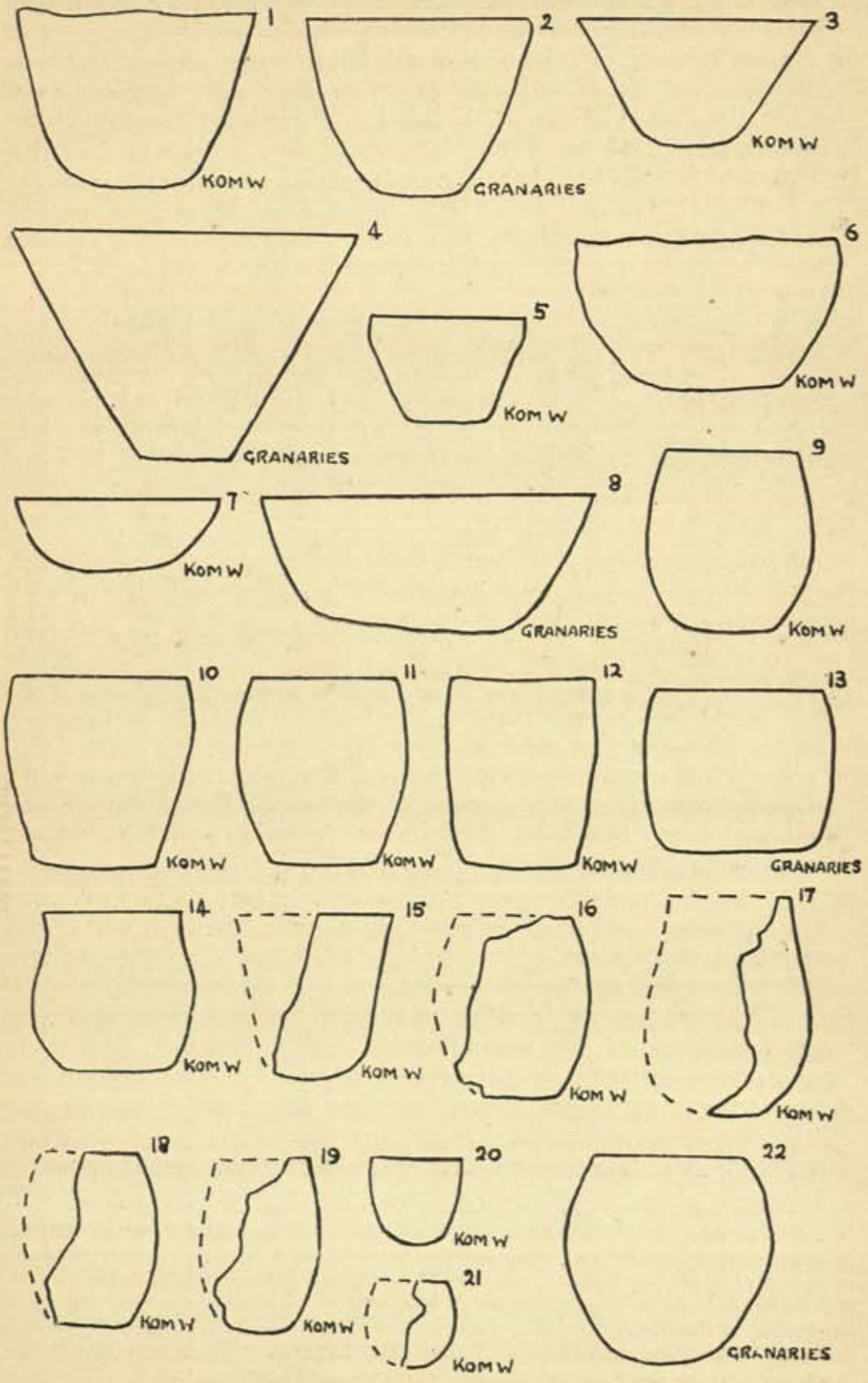
Pl. I, 3; vii, 4. Kom W, O 90/19.—Bowl in rough-faced brown ware, with disintegrated surface; thickness of rim about 0·3 i. Lying 6 i. beneath the surface and about 34 i. above bottom level. (U.C.)

Pl. I, 4; vii, 8. Upper K Granary, No. 7.—Bowl, wide-mouthed, with flattened base; interior rough-faced, red-brown, with traces of horizontal smoothing; exterior much blackened with smoke. The surface shows vertical smoothing.

[1] I must again plead that the "Fayûm Industry" be not labelled "Badarian"; to do so is, in my opinion, to confuse the issue. Those of us best acquainted with the peculiarities of both these very early cultures, do not need to be shown the resemblances, and we must be pardoned if we weigh the differences. A European prehistorian observes the differences between Aurignacean and Magdalenian, and would deplore their confusion; our case is not dissimilar.

[2] The mound was worked on a "latitude and longitude" system measured in feet. The letter indicates the block, the figures the latitude and longitude position.

PLATE I.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GRANARIES

Found inside a small unlined silo, measuring only 18 i. in diameter by 9 i. deep, and 9 i. beneath present surface. The bowl was already broken when placed in the granary, and the portions were missing. (U.C.)

Pl. I, 5. Kom W, No. 4.—Small Bowl with incurved sides, reconstructed from half original, in rough-faced brown ware, very badly fired; thickness at rim 0·3 i. Lying about 6 i. beneath the surface. (Figured and described in *Man*, Oct., 1925, Pl. K, No. 4.) (U.C.)

Pl. I, 6; vii, 11. Kom W, Q 79/11.—Bowl in rough-faced mottled-grey and red ware, caused by unequal firing; outer surface disintegrated; the rim is of uneven height and the diameter asymmetric; about 6·5 by 6 i. Thickness at rim about 0·43 i. This was just beneath the surface, and about 4 f. 1 i. above bottom level. (U.C.)

Pl. I, 7. Kom W, No. 12.—Saucer in rough-faced red ware, insufficiently fired and very soft. This was just beneath the surface. (Figured and described in *Man*, Oct., 1925, Pl. K, No. 5.) (Cambridge Ethnological.)

Pl. I, 8; vii, 13. Upper K Granary, No. 60.—Oval Dish in rough-faced brown ware, disintegrated surface, and extremely asymmetric. Found inside an unlined silo, about 14 i. beneath surface, together with pot (Pl. I, 22). (B.M., 58693.)

Pl. I, 9; vii, 2. Kom W, K 75/19.—Cup in brown-grey rough-faced ware, reconstructed from about two-thirds original; thickness at rim about 0·35 i. Lying 9 i. beneath the surface and about 18 i. above bottom level. (U.C.)

Pl. I, 10. Kom W.—Number and position obliterated. Cup in rough-faced red ware, disintegrated surface. (U.C.)

Pl. I, 11; vii, 3. Kom W.—Number and position obliterated. Cup in rough-faced pinky-grey ware, better fired than the preceding, but otherwise resembling it. Reconstructed from about half original. (U.C.)

Pl. I, 12. Lower K Granary, No. 37.—Cup in very rough soft red-grey ware, much disintegrated; thickness at rim about 0·3 i. From inside an unlined silo, measuring 3 f. 7 i. in diameter and 2 f. 4 i. deep. The cup was in the gravelly filling, only 8 i. beneath the top. Not kept.

Pl. I, 13; vii, 6. Upper K Granary, No. 64.—Cup, straight-sided with flattened base, in coarse rough-faced red ware; thickness at rim about 0·47 i. The base is smoke-blackened. Found inside a straw-lined silo, 3 f. in diameter by 2 f. deep, and 8 i. beneath present surface. The cup, which lay on the floor, was incrusted with the shelly gravel filling; with it lay two fragments of highly polished black pottery (*see* Pl. xi, 11). (B.M., 58694.)

Pl. I, 14. Kom W, P 105/5.—Cup in rough-faced pinky-buff ware, incurved sides and flattened base; reconstructed from about half original. This was 30 i. from surface, and about 29 i. above bottom level. (C.E.)

Pl. I, 15. Kom W.—Number and position obliterated. Small beaker-shaped cup in rough-faced red ware, badly fired; reconstructed from about half original. (U.C).

Pl. I, 16. Kom W, I 65/0.—Cup in rough-faced red-grey ware. Reconstructed from two-thirds original. Found 1 f. beneath surface, and about 10 i. above bottom level. (U.C.)

Pl. I, 17. Kom W, J 79/17.—Cup in rough-faced red-grey ware. Reconstructed from about quarter original. Lying 26 i. beneath surface and about 10 i. above bottom level. (U.C.)

Pl. I, 18. Kom W, I 80/9.—Cup in rough-faced red-brown ware. Reconstructed from about half original. Lying 2 f. beneath surface and about 1 f. above bottom level.

Pl. I, 19. Kom W, P 91/19.—Cup in rough-faced red ware. Reconstructed from about half original. Lying 1 f. beneath surface and about 3 f. 1 i. above bottom level. (U.C.)

Pl. I, 20. Kom W, No. 13.—Small Cup in rough-faced dark brown ware with disintegrated surface. Lying 4 i. beneath surface in original trial section and about 4 f. above bottom level. (Cairo Museum.)

Pl. I, 21. Kom W, K 50/1.—Small Cup in rough-faced red ware, reconstructed from about half original. Found 30 i. beneath surface in a pit cut into the lacustrine sands underlying the midden; the hole measured 30 i. in diameter, and was filled with black midden earth containing some fish-bones and a red sherd with ferruginous polish. (U.C.)

Pl. I, 22; vii, 5. Upper K Granary, No. 60.—Bowl, spherical, in dark-grey ware, polished and probably originally black, similar to fragment (Pl. xi, 11) from Granary K 64; portion of the rim is missing; thickness at rim about 0·3 i. Found with the dish shown on Pl. I, 8. (B.M., 58691.)

Pl. ii, 23; vii, 1. Kom W, F 154/12.—Bowl in rough-faced red and mottled-grey ware, reconstructed from about half original; thickness at rim about 0·3 i. Found 3 i. beneath surface, in clean sand on the midden edge, in a compact group, with 1 hexagonal grit hammer-stone, 2 unworked chert flakes, and some fish-bones. (U.C.)

Pl. ii, 24. Kom W, R 135/8.—Small Cooking Bowl in coarse rough-faced red ware, with mottled dark patches due to irregular firing; thickness at rim about 0·4 i. Lying 4 i. beneath surface and about 4 f. 7 i. above bottom level.

Pl. ii, 25. Kom W, No. 9.—Small Cooking Bowl in coarse rough-faced red-brown ware, irregularly fired, the surface completely perished through salt corrosion; thickness at rim about 0·43 i. It was 6 i. beneath surface in original trial section and about 3 f. 9 i. above bottom level. The bowl was drawn *in situ*. being too friable to preserve.

Pl. ii, 26. Lower K Granary, No. 41.—Small Cooking Bowl in coarse rough-faced brown-red ware; thickness at rim about 0·4 i. Placed inside a mud-lined silo, 40 i. in diameter by 25 i. deep. The bowl was in fragments, temporarily mended for drawing, but was too much disintegrated to keep.

Pl. ii, 27. Upper K Granary, No. 65.—Small Cooking Bowl, rimless and broken in three pieces; the surface bears traces of a ferruginous external polish, with a black patch due to unequal firing. Found inside an unlined hole sunk in shelly gravel in the granary pit area, at a depth beneath present surface of 14 i. (U.C.)

Pl. ii, 28; x, 4. Kom W, K 29/5.—Cooking Bowl in coarse rough-faced pink-grey ware. Lying 6 i. beneath surface, and about 9 i. above bottom level. The pot contained some fish-bones. (C.E.)

Pl. ii, 29. Kom W, No. 14.—Cooking Pot in coarse rough-faced red-brown ware, irregularly fired; the pot crumbled upon removal from midden and could not be preserved. Rim found just beneath surface.

Pl. ii, 30. Kom W, No. 8.—Cooking Bowl in rough-faced red ware, mottled black by unequal firing; traces of a ferruginous slip; thickness at rim about 0·25 i., standing 8 i. beneath surface on its base in a patch of ashes. (Figured and described in *Man*, Oct., 1925, Pl. K, No. 1.) (U.C.)

Pl. ii, 31. Kom W–C II.—Cooking Bowl in rough-faced brown-red ware, mottled grey; traces of a ferruginous external polish; thickness of rim about 0·3 i. Found on the fringe of sand-dunes near Kom W, inverted, the base just visible. The pot was too much disintegrated to preserve.

Pl. ii, 32. Kom W, No. 2.—Cooking Bowl in coarse rough-faced red ware, disintegrated surface, and beyond preservation; thickness of rim 0·47 i. The outline of the rim was just visible in the midden surface.

Pl. iii, 33. Kom W, P 98/15.—Small Cooking Pot in rough-faced pinky-grey ware, mottled by irregular firing. Thickness at rim about 0·4 i. Placed 21 i. beneath surface, and about 3 f. above bottom level. Contained several small fish vertebrae. (B.M., 58688.)

Pl. iii, 34; x, 5. Kom W, J 85/19.—Small Cooking Pot in rough-faced red ware, mottled grey; thickness at rim about 0·47 i.; rim disintegrated. Found about 4 i. beneath surface and 5 f. 6 i. above bottom level; contained 3 Spatha shells and fragment of an unidentifiable mammal-bone. (U.C.)

Pl. iii, 35. Kom K, C 94/15.—Small Cooking Pot in coarse rough-faced red ware, mottled grey; disintegrated rim. Lying 9 i. beneath surface and about 6 i. above bottom level. (Tokio Museum.)

Pl. iii, 36. Kom W, J 75/10.—Cooking Pot in coarse rough-faced pinky-buff ware; standing on its base, the rim at surface-level eroded away.

Pl. iii, 37; x, 3. Kom W, H 80/15.—Small Cooking Pot, with asymmetric constricted top in coarse rough-faced red and grey mottled ware. The rim was 2 f. beneath surface, the base resting on midden bottom at 3 f. The polished effect of the surface in the photograph (Pl. x, 3) is due to paraffin wax. Contained a sheep or goat scapula. (Kioto Museum.)

Pl. x, 2. Kom W, I 54/11.—Cooking Pot, similar in form to preceding, but larger, in coarse red-brown ware. The surface shows the presence of a finer brown slip; this has perished in places, exposing the crumbling, badly fired core. Found standing upon its base on midden bottom, which at this point was only 2 f. deep. Contained longitudinally cracked splinters of some small mammal. The pot, which was little more than powder consolidated by salt, fell to pieces, before it was drawn, in the moisture-charged atmosphere of a Fayûm desert night.

Pl. iii, 38. Kom W, H 95/17.—Cooking Pot in coarse rough-faced pink ware, with dark mottling due to uneven firing; the polished appearance in Pl. x, 7, is due to paraffin wax. Lying 26 i. beneath surface, on its side, little above bottom level. Contained some fish-bones. (Hancock Museum, Newcastle.)

Pl. iii, 39; vi, 2. Kom W, O 100/20.—Cooking Pot in coarse rough-faced red ware. Found standing upon its base resting on midden bottom, the rim 1 f. beneath surface. Contained fish vertebrae. (Cairo Museum.)

Pl. iv, 40; x, 1. Kom W, O 104/20.—Cooking Pot in rough-faced red ware mottled by uneven firing. Found standing on its base 14 f. from O 100/20, the rim 17 i. beneath the surface, and the base resting on midden bottom. (Ashmolean.)

PLATE II.

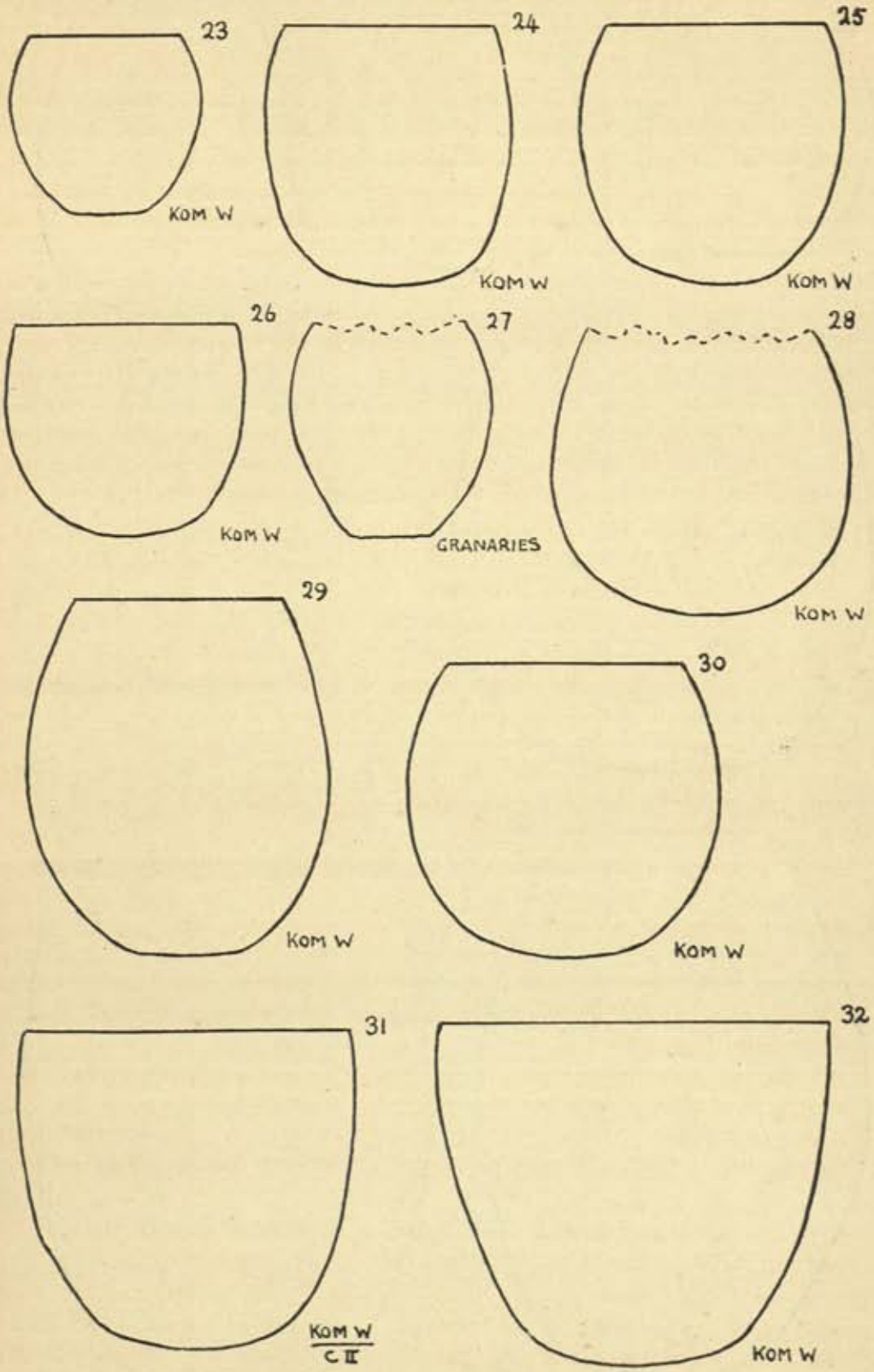
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PLATE III.

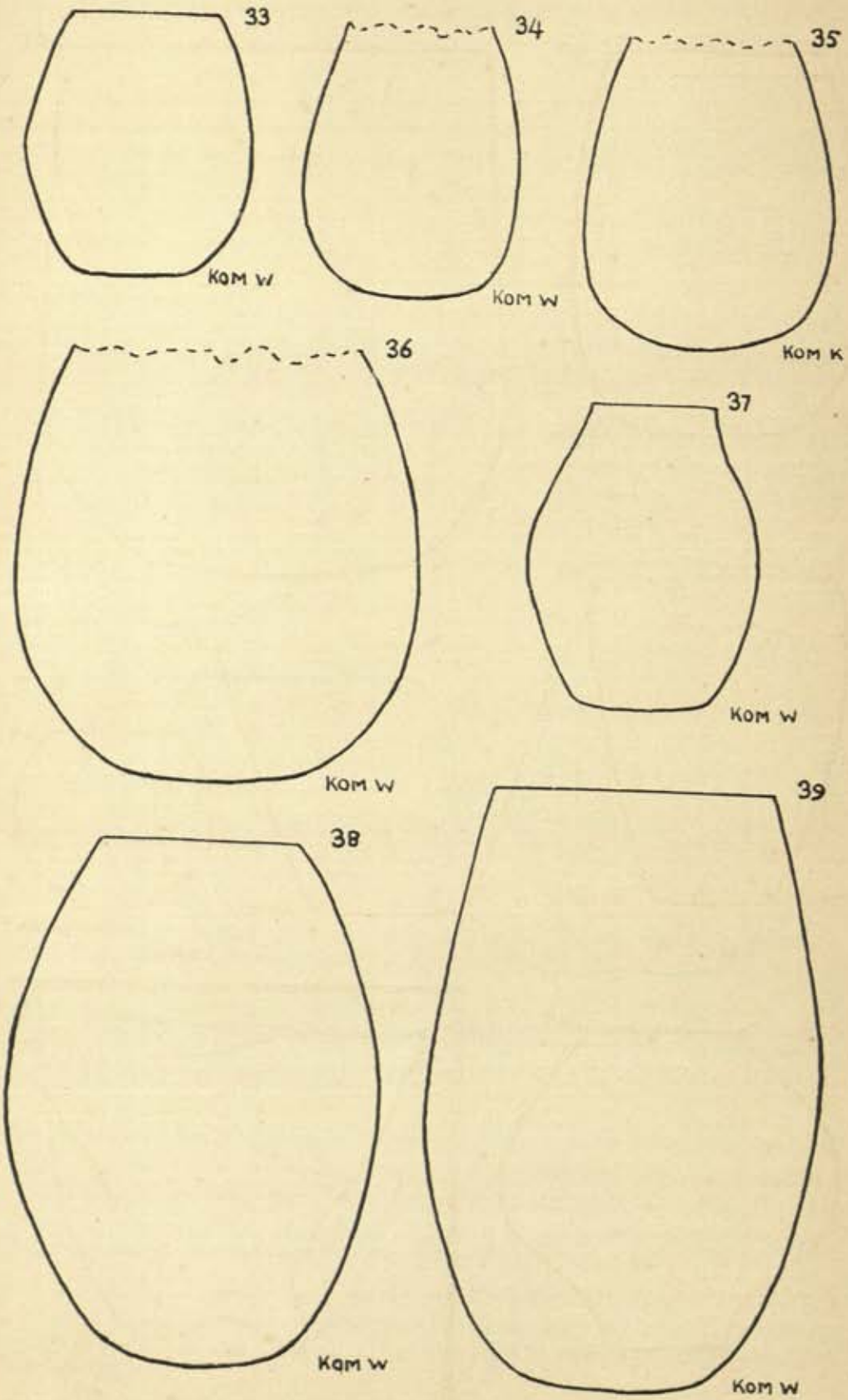
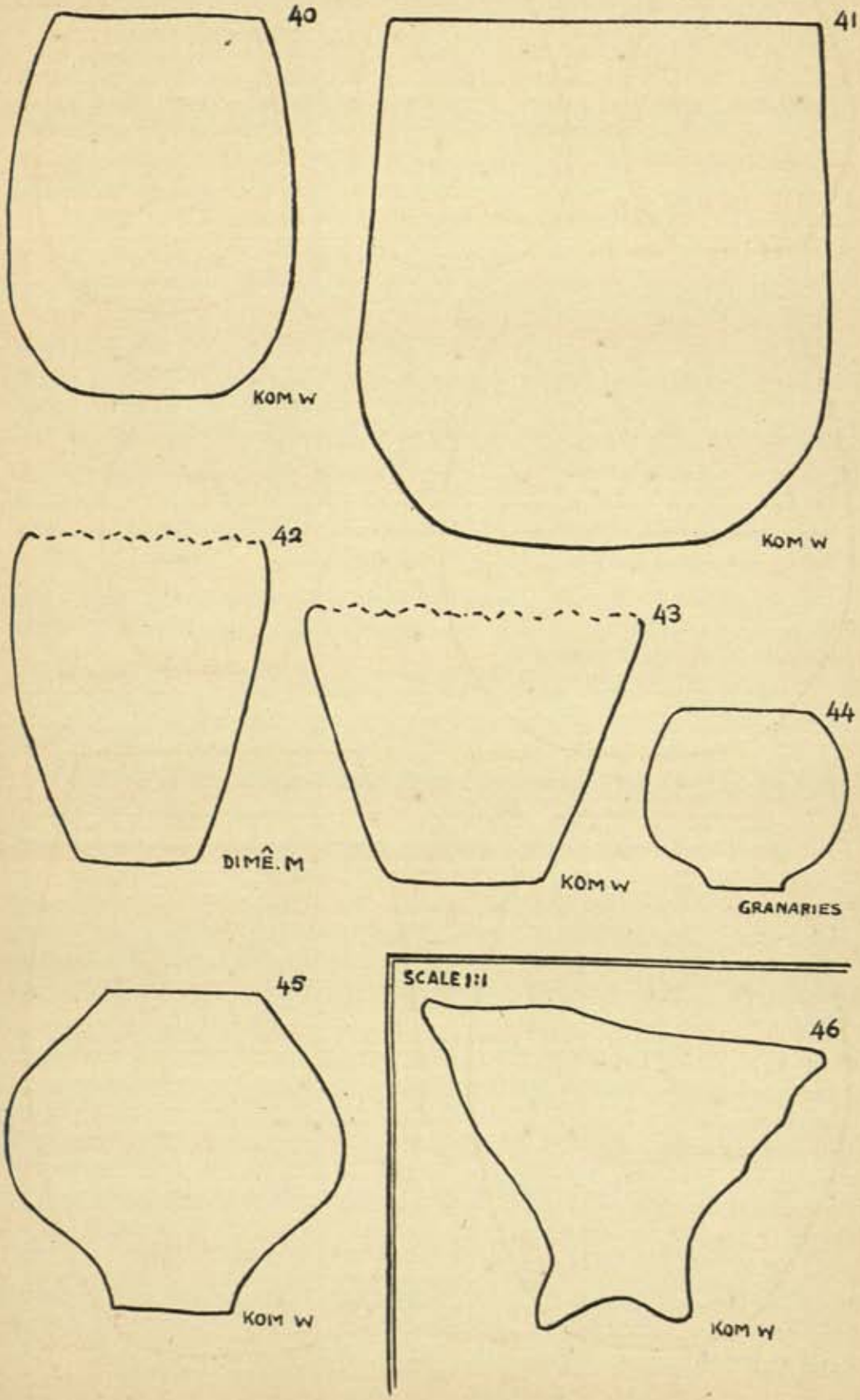


PLATE IV.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Pl. iv, 41 ; x, 6. Kom W, N 96/20.—Cooking Pot in coarse rough-faced red-brown ware, badly cracked ; asymmetric rim, diameter 17 by 15 i. The rim was found 9 i. beneath surface, standing upright in a charcoal-blackened hearth, with the base resting on midden bottom. (Bolton Museum.)

Pl. iv, 42. Dimê M 93.—Cooking Pot in hard, compact, coarse, dark-brown rough-faced ware ; the fabric is dissimilar to the other pots, and may be proto-dynastic, as some remains of this period were obtained in the vicinity ; on the other hand, its form approximates to fig. 43, which is indisputably Fayûm Neolithic. Found on the outskirts of a large Neolithic settlement, standing on its base in clean sand little below the surface. (U.C.)

Pl. iv, 43. Kom W, R 98/1.—Cooking Pot in dark-red ware with ferruginous external polish, much cracked, and no rim. Lying 6 i. beneath surface, and about 4 f. above bottom level. (U.C.)

Pl. iv, 44. Lower K Granary, No. 103.—Pot of curious shape with flattened asymmetrically footed base, in rough-faced red-brown ware ; thickness at rim 0·3 i. ; much disintegrated and not kept. Found inside a mud-lined silo, diameter 7 f., at a depth of 3 f. 4 i. ; a sherd of another pot was with it.

Pl. iv, 45. Kom W, P 98/6.—Pot of curious form, very asymmetric, in coarse red-brown ware ; possibly the sides collapsed in firing ; the neck is constricted and the footed base recalls fig. 44. It was lying 2 f. beneath surface and about 2 f. 6 i. above bottom level. (Manchester Museum.)

Pl. iv, 46. Kom W, I 102/0.—Small four-legged Cup in pinky-buff rough-faced ware, very asymmetric. Lying 39 i. beneath surface and about 16 i. above bottom level. (B.M., 58690.)

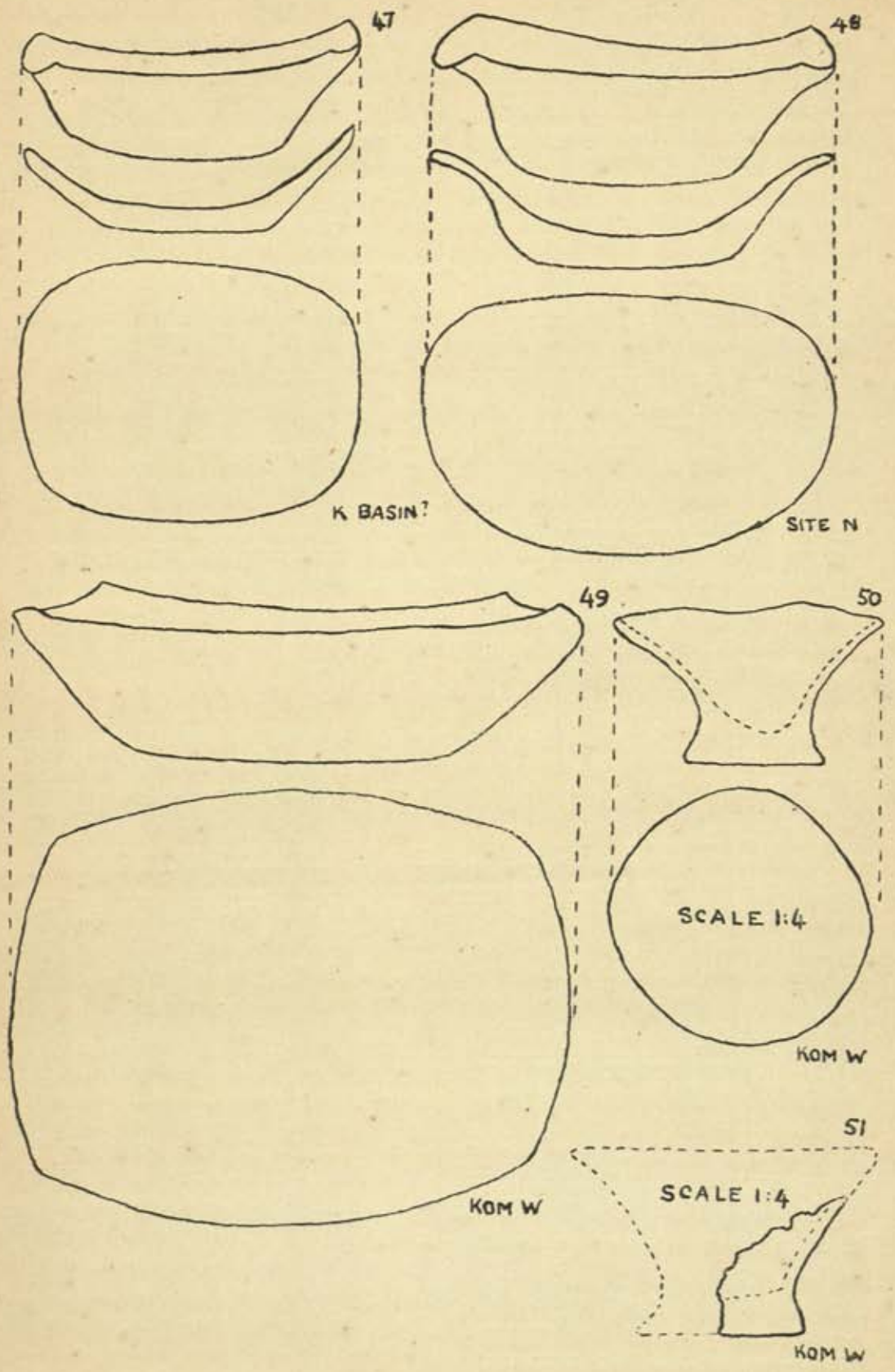
Pl. v, 47 ; viii, 1. K Basin (?).—Rectangular Dish in coarse rough-faced brown-red ware ; the four corners of the rim are less pronounced than the normal. The dish was brought in by a workman, who found it with the rim just protruding above the surface. (At present in possession of the R.A.I.)

Pl. v, 48 ; viii, 2. N. Site.—Rectangular Dish in coarse rough-faced brown-red ware ; the corners of the rim are typically " peaked." Found, partially covered by detritus, on a ledge of sand-rock formed by old lake-beds, the centre of an important Neolithic surface site. Height 195 f. above present lake level. It contained 12 valves of *Spatha caillaudi*, lumps of red ochre, 2 quartz pebbles bruised at extremities, and 2 rough flint cores. Thickness at rim about 0·23 i. (Figured and described in *Man*, Oct., 1925, Pl. K, 2.) (U.C.)

Pl. v, 49 ; viii, 3. Kom W, M 125/3.—Large rectangular Dish in coarse red ware ; the interior shows remains of a ferruginous plum-coloured wash with horizontal polishing down to 3 i. to 3·5 i. below rim ; the exterior is mottled from black to pale brick-red. The dish was about two-thirds complete. The photograph on Pl. viii, 3, shows a reconstructed surface, and that on Pl. xi, 21, shows the interior of the dish. Lying 27 i. beneath surface and practically upon bottom level ; the dish was on the edge of a well-marked hearth with sherds and a pig canine. (B.M., 58687.)

Pl. v, 50 ; vii, 9. Kom W, L 40/1.—Pedestalled Cup in coarse rough-faced red-grey ware ; thickness at rim about 0·4 i. It was 16 i. beneath surface and about 14 i. above bottom level. (B.M., 58689.)

PLATE V.



Pl. v, 51. Kom W, J 100/2.—Pedestalled Cup, portion of base only in rough-faced red-brown ware. Level, 3 f. beneath surface and about 1 f. above base, in the upper filling of a pit. (U.C.)

Pl. ix, 1. Dimê Area.—Small Vase, black polished, in hard, well-fired ware, decorated with closely distributed wedge-shaped punches; the polish is carried over on to the inside of the neck. The vase, which was found lying in surface sand, is extremely weathered, and the original black burnished surface survives in patches on one side only. The paste is compact, and dark grey in colour. Age unknown. (U.C.)

Pl. ix, 2. Kom W, S 146/16.—Rim fragment in dark-grey unpolished ware, with 4 " studs " set on the rim edge; thickness about 0·25 i. This was 3 f. 3 i. beneath surface, and about 10 i. above bottom level. (U.C.)

Pl. ix, 3. Badari 5200.—Rim fragment in red-brown unpolished ware with smoky black patches; 3 " studs " set 0·35 i. below the rim; the interior shows horizontal striae; the ware is fairly well fired; thickness 0·3 i. (U.C.)

Sherds.

Those figured are all at University College. Great quantities were found at the two principal midden-mounds; a selection of these were brought to England and distributed amongst twenty-two museums receiving type sets of associated flint implements. Many sherds await final allocation on application.

Pl. xi, 1. Kom W, J 79/3.—Interior aspect of " peaked " rim. It shows an eroded plum-coloured ferruginous slip, extending over the rim and with traces on the outer surface; black, soft core; thickness about 0·4 i. Lying 3 f. 9 i. beneath the surface on bottom level.

Pl. xi, 2. Kom W, H 100/14.—Interior aspect of " peaked " rim, with plum-coloured slip as before, confined to interior only; the outer side is rough-faced red-brown; the broken section shows a black, soft core 0·25 i. thick, sandwiched between 0·15 i. of brown; total thickness 0·5 i. At 32 i. from surface, and 15 i. above bottom level.

Pl. xi, 3. Kom W, F 95/20.—Exterior aspect of " peaked " rim in mottled grey and red rough-faced ware; no certain traces of a red slip, though indications are present of " wet hand " smoothing of the surface; the ware is better fired, with a brown core; thickness 0·43 i. At 6 i. beneath surface and about 9 i. above bottom level.

Pl. xi, 4. Kom W, F 95/18.—Exterior aspect of " peaked " rim; colour grey, rough-faced; interior red-brown; no slip; a finger imprint remains where the thumb squeezed the clay into the " peak "; black, friable core; thickness 0·55 i. Level unknown.

Pl. xi, 5. Kom W, F 55/16.—Exterior aspect of " peaked " rim, in rough-faced red-brown ware with black friable core; thickness 0·6 i. From a shallow area only 12 i. deep.

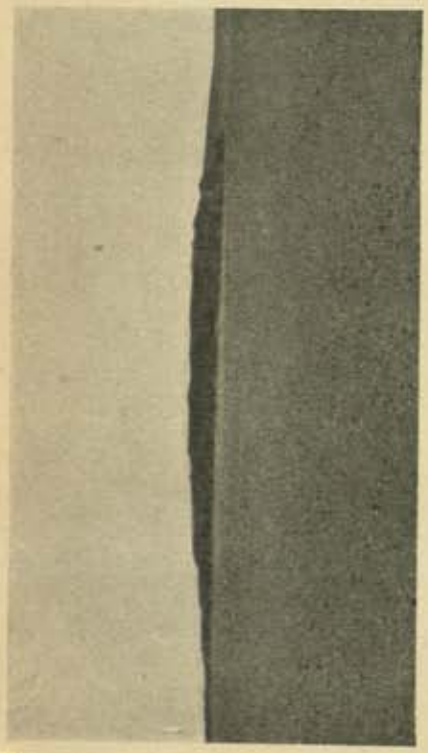
Pl. xi, 6 Kom W, number obliterated.—Exterior aspect of " peaked " rim with traces of ferruginous slip on both sides; black core; thickness 0·43 i.

Pl. xi, 7 Kom W, Q 119/19.—Exterior aspect of " peaked " rim in rough-faced grey-brown ware, smooth, but not apparently slipped; thickness 0·47 i. At 3 f. beneath surface, in the top contents of a pit.

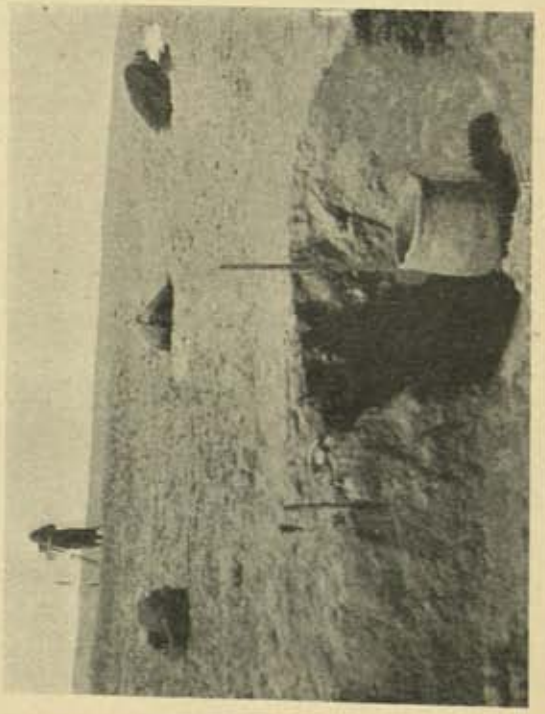
PLATE VI.

KOM W. COOKING POTS O $\frac{100}{20}$ AND $\frac{104}{20}$ IN SITU.

KOM W. EXCAVATIONS, SHOWING POT EMERGING IN SECOND LAYER.



KOM W. FROM THE EAST AFTER EXCAVATION.



KOM W. COOKING POT N 96/20 IN PLACE.

PLATE VII.

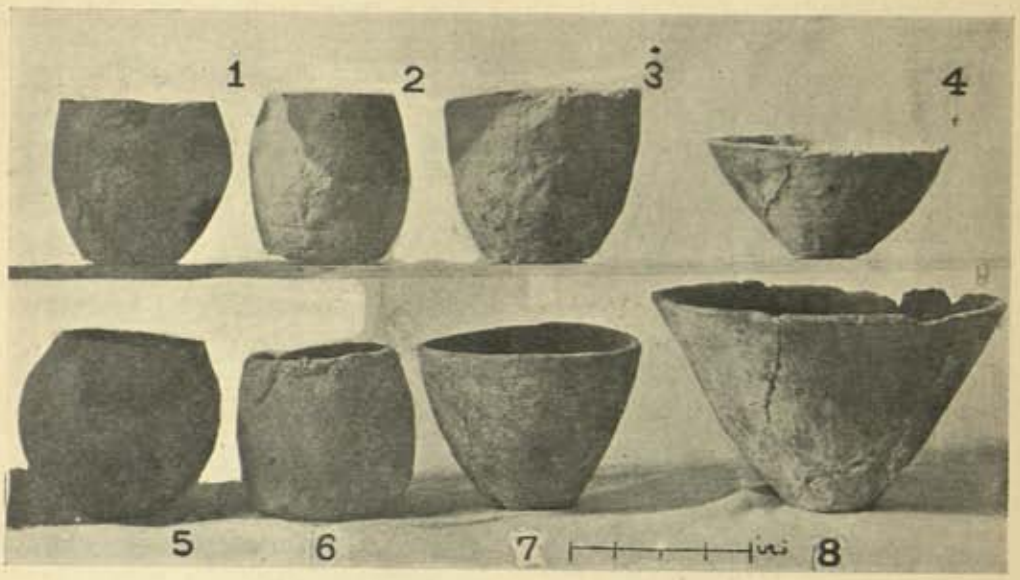
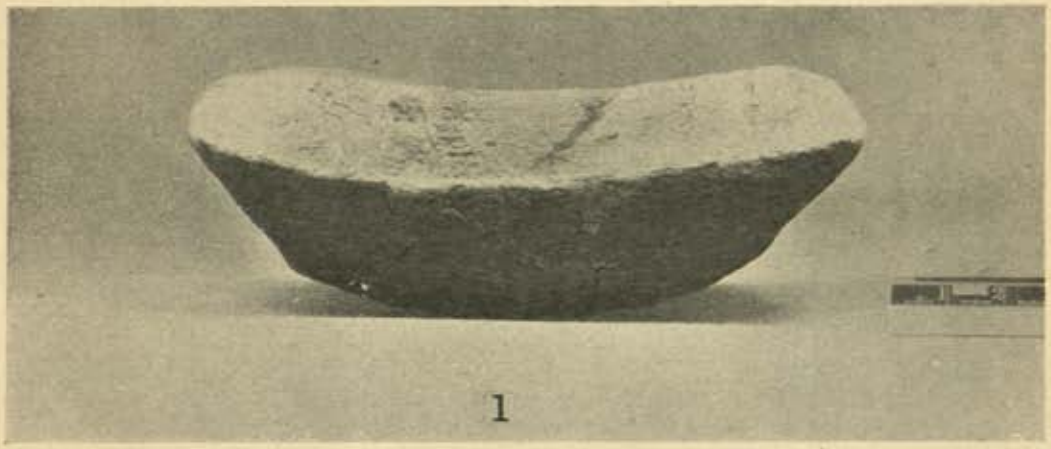


PLATE VIII.



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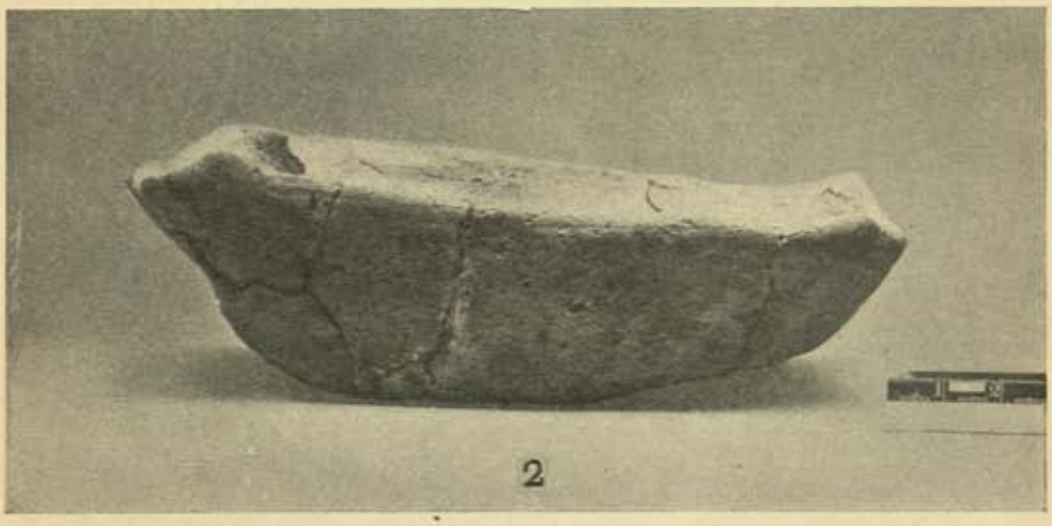

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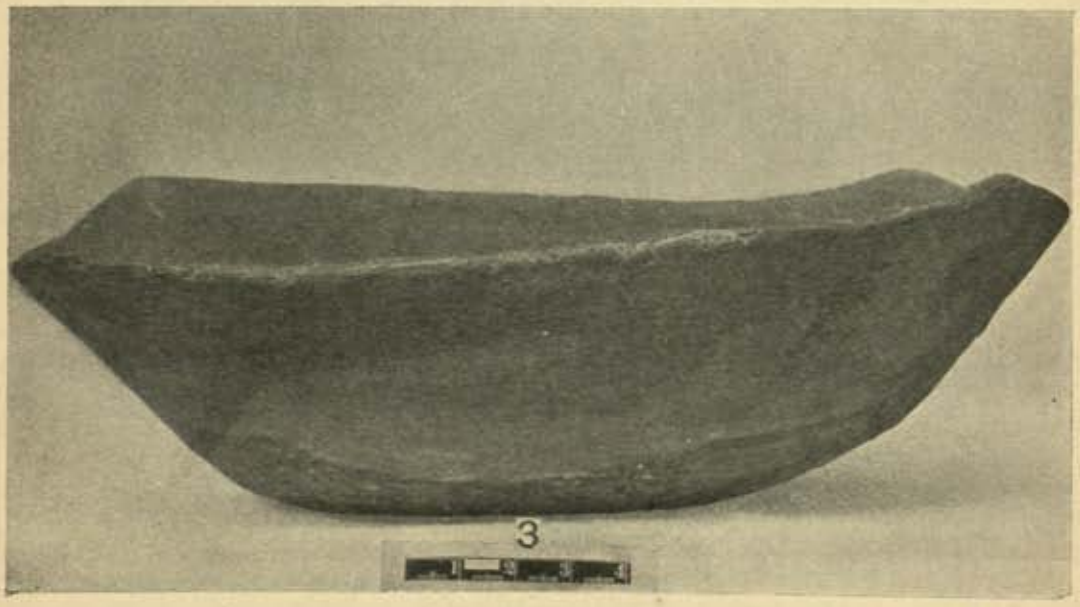

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PLATE IX.

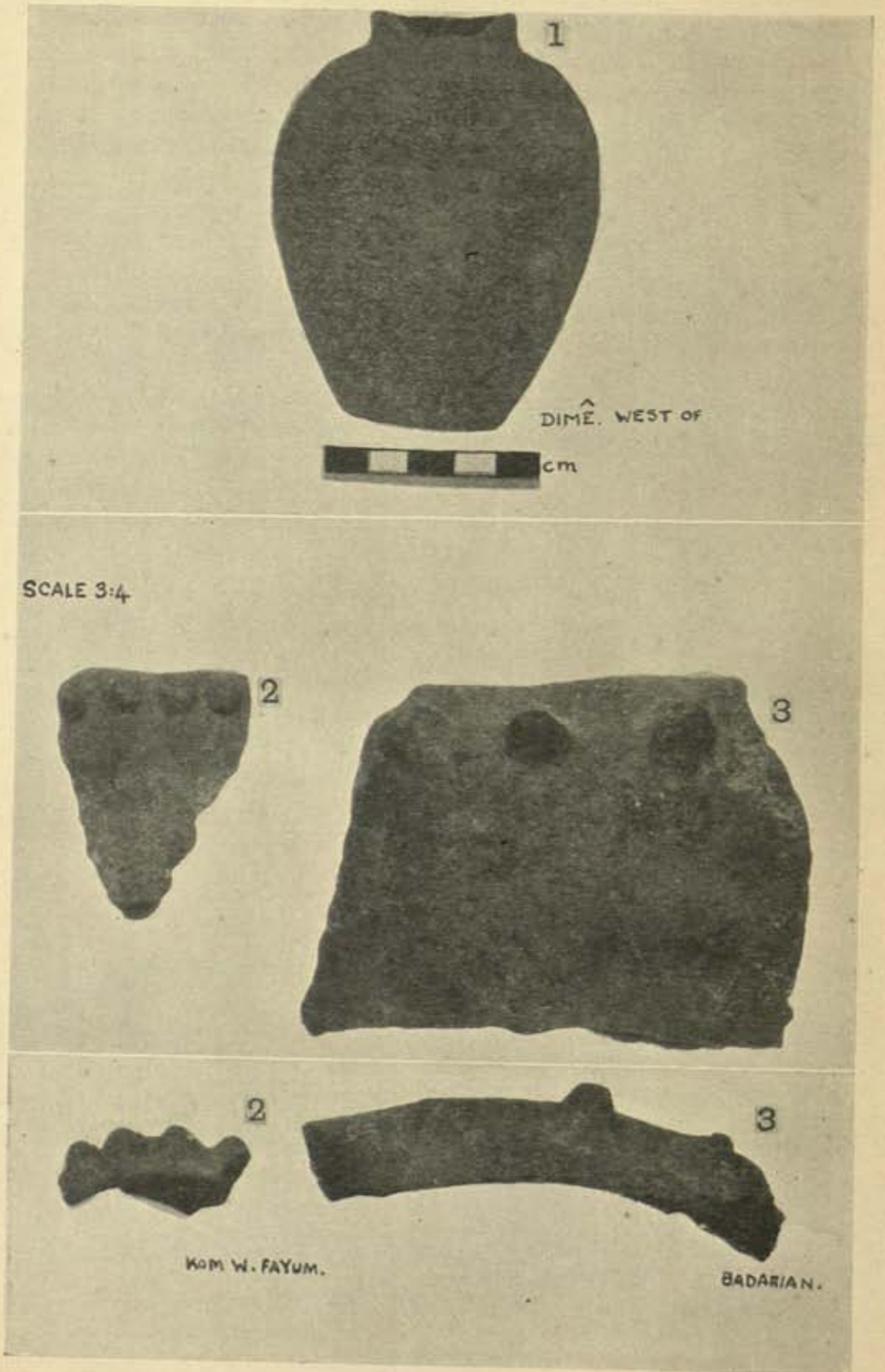
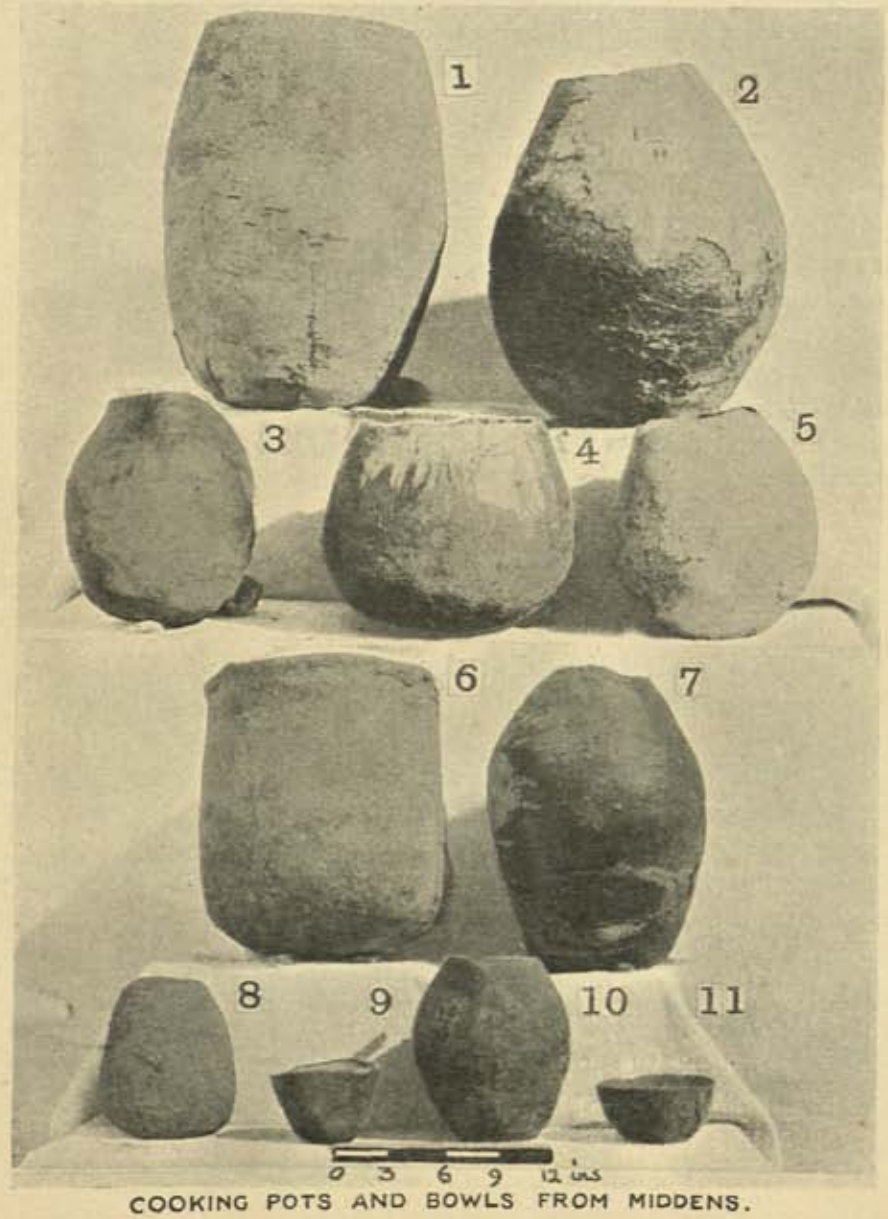


PLATE X.

GRANARY SITE FRAGMENTARY POT STANDING UPON A STRAW PLATTER.



COOKING POTS AND BOWLS FROM MIDDENS.

Pl. xi, 8. Kom. W, J 122/5.—Interior aspect of " peaked " rim, showing ferruginous plum-coloured slip extending over rim ; outer face rough-faced ; black core ; thickness 0·55 i. At 3 f. beneath surface, practically on bottom level. The sherd probably belongs to J 79/3 (Pl. xi, 1).

Pl. xi, 9. Kom W, N 100/8.—Exterior aspect of " peaked " rim in rough-faced mottled grey and red-brown ware with salt-disintegrated surface ; interior shows horizontal pressure ribbing ; coarse black core ; thickness 0·5 i. At 9 i. beneath surface and 18 i. above bottom level.

Pl. xi, 10. Kom W, M 123/17.—Exterior aspect of " peaked " rim in rough-faced mottled brown and grey ware ; the interior is smoothed but not slipped, and shows horizontal striae ; thickness 0·47 i. At 2 f. beneath surface, little above bottom level.

Pl. xi, 11. Upper K Granaries, No. 64.—Exterior aspect of highly polished black ware of globular form ; interior dark grey, unpolished ; black, coarse core, with much straw in the composition ; thickness, max. 0·67 i., min. 0·27 i. From interior of small straw-lined silo, together with the complete cup (Pl. I, 13).

Pl. xi, 12. Kom W, H 105/19.—Rim of black polished vase ; unpolished black interior, with imprint of straw *dégraissant* ; thickness 0·2 i. Though finer ware than the preceding, the black polished texture is similar. At 3 f. beneath surface and 9 i. above bottom level.

Pl. xi, 13 and 14. Kom W, H 110/15.—Two fragments of rim of very small vase, black polished on both sides ; thickness 0·15 i. At 3 f. beneath surface and 6 i. above bottom level.

Pl. xi, 15. Kom W, G 110/10.—Exterior aspect of fine red-polished ware ; interior is rough-faced red ; the ferruginous slip is similar to that used on the coarser wares ; thickness 0·25 i. At 27 i. beneath surface and about 4 i. above bottom level.

Pl. xi, 16 and 17. Kom W, R 135/17.—Two fragments showing exterior aspect of rim of small vase ; the ferruginous plum-coloured slip extends over both sides ; well-fired brown core ; thickness 0·25 i. At 4 f. 3 i. beneath surface in the top filling of a pit.

Pl. xi, 18. Kom W, H 100/5.—Exterior aspect of rim with rivet-hole ; plum-coloured slip extending over to the interior ; well-fired brown paste ; thickness 0·3 i. At 18 i. beneath surface, and 28 i. above bottom level.

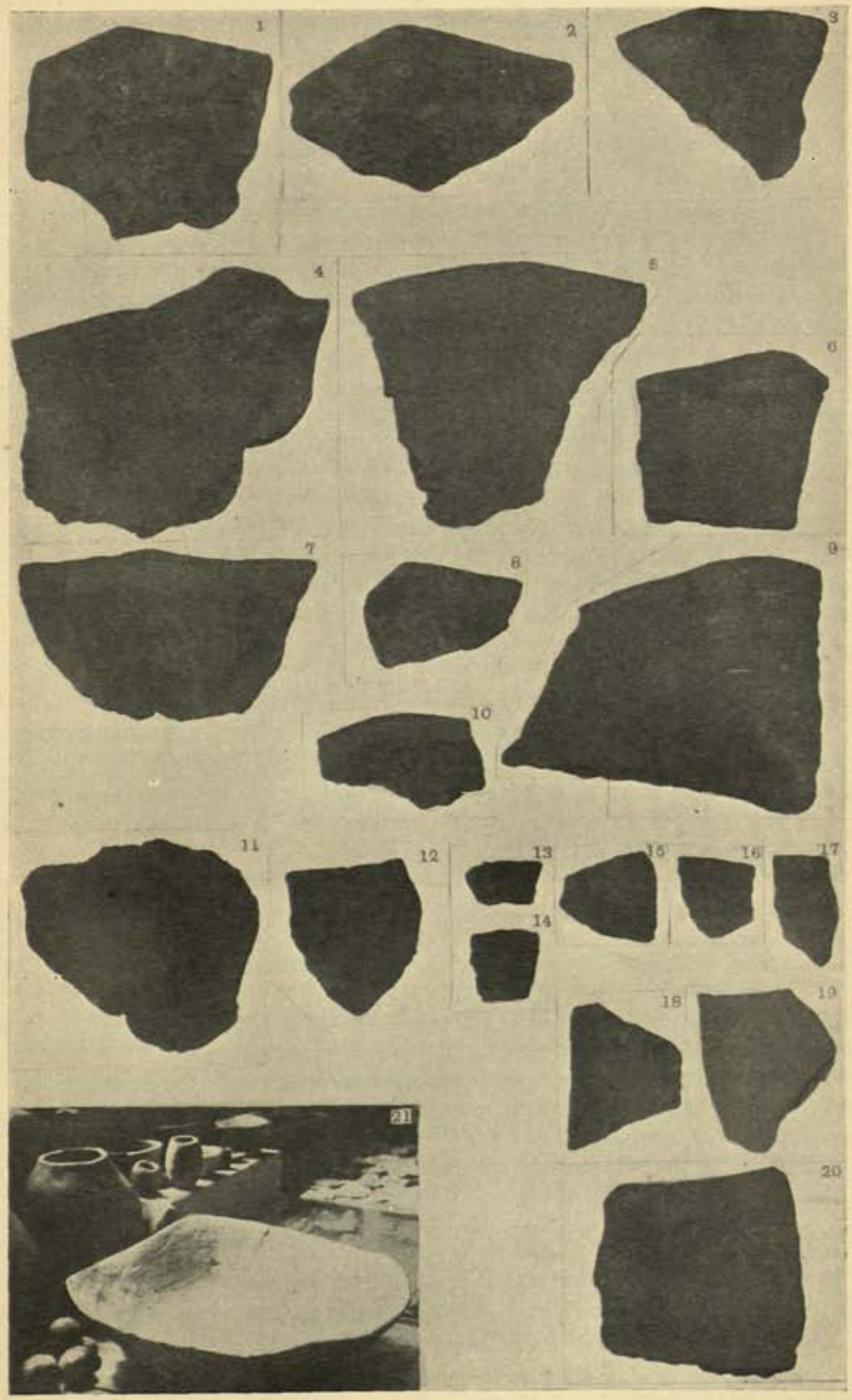
Pl. xi, 19. Kom W, R 135/19.—Exterior aspect of rim in light pink-buff ware, with a fine, smooth, slightly burnished surface ; this does not seem to be due to an applied slip, but is probably the automatic result of the " wet hand " technique ; black core, more compact paste than most ; thickness 0·27 i. At 5 f. 6 i. beneath surface, at base of a pit which contained also remains of a large coarse cooking bowl.

Pl. xi, 20. Kom W, K 108/10.—Rim in coarse rough-faced red-brown ware, with a round boss projecting about 0·3 i. ; black core ; thickness about 0·4 i. At 3 f. beneath surface and about 6 i. above bottom level.

To Mr. Harding and Mrs. Benson, and to the late Mr. A. Hayter, my thanks are due for outline drawings of much of the pottery.

G. CATON-THOMPSON.

PLATE XI.



REVIEWS.

Introduction au Catalogue des Intailles et Empreintes Égyptiennes. By L. SPELEERS. 8vo. 74 pp., 6 pls. 1927. (De Meester, Watteren.) N. P.

In this general account of the scarabs and cylinders, most aspects of the subject are noticed, and nearly 400 examples in the Royal Museum at Brussels are figured. Unhappily, they are so much reduced and so indistinctly printed that the good intention of the author is not carried out. The most interesting part of this monograph relates to the button badges. They are dated rather too early; as in Mahasna, which is quoted, they are only found with alabaster vases of the VIth dynasty, or later. The scarabs with the name of Mena are not accredited to his age by any writer. The case is quite different with the scarabs of Sneferu, which have a spelling that is only known in his reign. The little scarabs of Nebka are so much more primitive that they may well be a few reigns earlier. Regarding the late examples of the names, User-maat-ra and Men-ka-ra, they obviously may belong to the later kings who bore those names, and the same is true of many of the late examples of Men-kheper-ra. It may be noted that the so-called Hyksos style is Palestinian as late as the XIXth dynasty. These cautions may help the readers of this interesting pamphlet.

Dramatische Texte zu Altaegyptischen Mysterienspielen. By PROF. KURT SETHE. 80 pp. 1928. (Leipzig: Hinrichs.) N. P.

The tenth volume of the *Untersuchungen zur Geschichte und Altertumskunde Aegyptens* is devoted to the Egyptian Mystery Plays, of which one hears so much and knows so little. Professor Sethe begins the series with the well-known stele in the British Museum, already published by Breasted under the title of the Philosophy of a Memphite Priest. Professor Sethe gives an account of the text, discussing its age and its content, and the difficult matter of the connection and division of the lines. He suggests that the drama of the division of the land of Egypt between Horus and Seth was played before the eyes of the people, and that the short sentences of the inscription were read out by the "producer" and served the same purpose as the captions of the films.

When Prof. Sethe undertakes to translate a text, one may be certain that no point of grammar will be left untouched, no detail of the script left unnoted. The volume is a monument of immense knowledge and of meticulous care. It contains a mass of important grammatical material, supported in every case by copious references to other texts; it is therefore a book which every student of the language must possess. Besides the grammatical notes there is a very great amount of information on obscure priesthoods and other matters, as, for instance, the  -priest of Anubis, a title known as early as the Old Kingdom. Again, on the subject of the god  of Memphis, who is usually said to be "a form of Ptah," Prof. Sethe has much to say. One of the most interesting notes is on the emblem of Neith, the shield and crossed arrows, which is in this inscription the determinative of the word  , and apparently is some

form of spirit or daemon in apposition with the ⌊⌋, both of whom are connected with the god  . It is not often possible to make a suggestion to so great a master of the subject as Prof. Sethe, but there is one point which has apparently not occurred to him but to which Prof. Petrie has already called attention, and that is the name of Memphis. This is not "The White Wall," but the "Fortress of the Mace." The smiting of an enemy chief was a religious ceremonial; Samuel, for instance, hewed Agag in pieces *before the Lord;* and the weapon used must originally have been sacred. Narmer smites his enemy with a mace, and later inspects the ten human victims of the sacrifice. The mace is not shown in action in any early representations of battle-fields, which is a suggestion that it was the sacrificial weapon. Prof. Sethe's volume is one of the most important which has appeared during the last few years, and all scholars look forward to a continuation of the series.

M. A. MURRAY.

Archiv. für Orientforschung. III. Part I.

The only paper of Egyptological interest in this number is "Zum Mythus und zur Gestalt des Osiris," by G. van der Leeuw. Though very short, it contains many interesting suggestions. Dr. van der Leeuw accepts Breasted's theory that Osiris began as the terrifying Death-god, a "Quälgeist," tracing the development of the human attributes, and finally raising him to heaven. He considers Osiris a combination of Khenti-Amentiu, the tree-god of the *Ded*-pillar, and the god of the "new water," *i.e.* the inundation; the filiation to Nut being an addition of the theologians of Heliopolis. To Dr. van der Leeuw the priesthood played a great part in the development of the Osiris belief, but he acknowledges that the true history of the development of the Egyptian religion has yet to be written. Here he is looking for the unattainable, as the clash of the foreign Sun-worship with the long-established Osiris-cult, which is indicated in the Pyramid Texts, cannot be written unless our present knowledge of that early period is increased a hundredfold.

M. A. MURRAY.

Imhotep the Vizier and Physician of King Zoser. By Dr. J. B. HURRY. 8vo. 197 pp., 26 pls. (Milford.) 1928. 10s. 6*d*.

The first edition of this book was noticed in this Journal (1926, p. 126); it is now issued enlarged to half as much again, including the connection with the discoveries at Saqqarah. All references to Imhotep are described, with full statement of the sources; every care has been given to collecting the material and placing it as clearly as may be before readers who are not Egyptologists. The outlines of Egyptian medicine are fully traced, from a professional point of view, and this may well serve as a guide to the literature of the subject. It is to be hoped that more may be found about Imhotep in connection with the works of king Zeser, so a further edition may yet be looked for. In future, a few points need attention. The Indian stupas are so long after Zeser that no connection with his pyramid can be expected. Heroonpolis was not the "city of heroes," but of the god of the Thracian mercenaries. Incubation was carefully studied by Mary Hamilton of St. Andrews, whose book (1906) is the main authority. The decay of Egypt was due to the constant extortions of Rome, and was terrible long before the prevalence of monasticism.

JOURNALS.

Bulletin of the Metropolitan Museum, New York, June, 1928.

LANSING, A.—*Accessions to the Egyptian Collection.* Much of the building stone used in the erection of the Pyramid of Amenemhat I (at Lisht) had been taken from mastabas and pyramids of the Old Kingdom, including many fine examples of sculpture from the core of the pyramid and from the foundations of its temple. The whole mastaba of Perneb was granted to the Metropolitan Museum by the Government. Some fine wooden statues have also been obtained thus, one of which is illustrated here of Ka-em-senu in the VIth dynasty, and the remaining wall of his tomb has also been obtained. Some smaller additions are also figured.

Zeitschrift für Ägyptische Sprache. Vol. LXII, Part 2. 1927.

KEES, H.—*Ein Klagelied, über das Jenseits.* This article deals with the tomb of one *Nfr-šḫw*, the only New Kingdom tomb with scenes and texts among those near Sauiet el-Meitin (Kom el-Ahmar) in the old 16th nome of Upper Egypt. This tomb may be included in a group of well-known tombs which were influenced by the art of Tell el-Amarna, the choice of scenes and texts confirming this placing. Two laments over the mummy by the wife of the deceased claim attention, as they belong to a literary type which is very characteristic of the period, expressing sentiments which are sharply at variance with contemporary official beliefs: The grave "is deep and dark, without door or window, without light. . . . There the sun rises not, and they lie the whole time in darkness."

BEHNK, FRIDA.—*Lexikalische Beiträge zur ägyptisch-semitischen Sprachvergleichung.* With all due caution, the writer submits a list of thirty-six Semitic equivalents for Egyptian words.

GUNN, BATTISCOMBE.—*The word*  . This word occurs twice, expressing an antithesis, in a passage in the *Instruction of Amenope* (1916–17). The passage was dealt with by Sethe in the *Göttingen Nachrichten* (*Phil.-hist. Klasse*), 1925; it means "Man proposes, God disposes." Gunn detects in the word a disguised form of the word *wi³·tw*, used here as an idiom meaning "separate," "of one kind": "The words that men say are of one kind, the acts of God are of another kind."

SCHARFF, ALEXANDER.—*Ein Denkstein der römischen Kaiserzeit aus Achmim.* This article deals with a stele (Inv. 22489) recently acquired by the Berlin Museum, which bears the name of the Emperor Hadrian (A.D. 117–38). The stele is in a bad state of preservation, nevertheless the execution of the reliefs and the inscription reveals great skill in rendering the traditional Egyptian style, even at so late a date. Six of the seven gods represented fall into two triads: Osiris, Isis, and Horus; Min, Triphis, and Kolanthes (a rare god, here called the

son of Isis and Osiris, and " the great first heir " of Min). The seventh god is Haroeris, Lord of Letopolis, who is, perhaps, associated with these on account of the similarity in name between his city and Achmim ; he is described as being  " a guest in " Achmim. In his titulary, Hadrian is called " the young man from foreign lands " (*ḫnnw-ḫ³ś·wt*).

SCHÄFER, H.—*Das sogenannte "Blut der Isis" und das Zeichen "Leben."* The  and the  signs are frequently associated with a symbolical meaning in New Kingdom ornament, and the combination has long been supposed to represent Isis and Horus. Schäfer believes, however, that such was not the original meaning of the signs ; he considers that they were originally word signs used symbolically, and that  was merely another form of the object which was taken to represent the idea of " life," which is usually rendered by  .

SETHE, K.—*Die Jahresrechnung unter Ramses II und der Namenwechsel dieses Königs.* Rameses II may now be included among those monarchs of the New Kingdom who reckoned by regnal years (beginning with the day of accession) not by the calendar. The original form of his name was *Wsr-m³ᶜ·t-rᶜ*. It seems likely that *stp-n-rᶜ* was added invariably and inseparably to the original name between the 10th day of Epiphi and the 23rd day of Phaophi in the first year of his reign, an intermediate form being *Wsr-m³ᶜ·t-rᶜ* with varying epithets. It is also probable that the original form of the name cannot have been in use alone for more than the first four months of his reign, the intermediate form not for more than the first six or seven months. In this short span Rameses II cannot have been responsible for all the buildings which bear the old forms of his name ; he must merely have completed in many cases his father's work.

TILL, WALTER.—*Achmîmische Berichtigungen und Ergänzungen zu Spiegelbergs Handwörterbuch.* This article consists of some 15 pages of corrections and addenda to Spiegelberg's Coptic *Handwörterbuch*. These were rendered necessary by a comparison of Wessely's edition of the Achmimic version of the Minor Prophets with portions of the original MS. which is preserved in the National Library at Vienna.

SETHE contributes an obituary notice of Aaron Ember, Professor of Egyptology at the Johns Hopkins University, who died in June, 1926. He succumbed to injuries received in rescuing from the fire, in which his house was burnt down, the MS. of a book which he was about to publish on the affinities between the Egyptian and Semitic languages.

There is also a short obituary notice of Edouard Naville.

L. B. E.

Syria. VIII.

MONTET, P.—*Un Egyptien, roi de Byblos.* Of the Royal tombs of Byblos, Nos. I–III were found intact, No. IV was robbed probably in 1852, Nos. V–IX were robbed anciently. Two scarabs were brought from Byblos shortly after the tomb IV was opened. They are of " *ropa hat* Amapa, son of Mezer-tebt-atf," and of the " mistress of the house Sat-user." Strangely, the parentage is reversed in the translation by M. Montet, and Amapa is taken as the father :

the examples in *Scarabs* XIII, AP, of Neferhetep and of Sebekhetep, show that columns are read in the same order as on steles, the father's name afterward. In the robbed tomb IV a scrap of inscribed alabaster vase of a prince of Byblos was lately found, but the name is effaced, and the remains ending . . . *tuf* will not agree with either of the names on these scarabs, though it is here restored as if it did so. The form of the mat *p* is a new variant, a square vertically divided in halves, with three sloping lines on the second half. This paper is important, and can be had separately from Geuthner at 5 frs.

DUNAND, M.—*La cinquième campagne des fouilles de Byblos.* Remains of a paved area joining the two temples was discovered. Upon this stood a block of masonry, in both the north and south faces of which was a hollow, closed by a slab. In each hollow was a wide-mouthed jar, most like the forms *Kahun*, xxi, 64, and *Harageh*, xliv, 38 M, of the XVIIth–XVIIIth dynasties. These each contained sixty little bronze figures of warriors; there were also three small bulls, and one little vase with handle and lip. The second jar is stated to be like a pre-semitic form (*see* Macalister). The whole is dated by M. Montet to between the Old and Middle Kingdom. Various objects are briefly stated to have been found at the same level, but are not illustrated. A seated female figure is of a private person, inscribed to Hathor, who is in Kpn (Byblos). There is much confusion of periods owing to the ancient removal of the paving.

In the Old Kingdom stratum is abundant pottery, with cord round the neck, polished red, and with yellow or brown facing, many inscriptions of Pepy I and II, and a fragment with name of Khufu. The neighbouring cemetery has been partly searched; jars were found containing unfleshed bones; in one were those of three adults and a child, in another two adults. These multiple burials suggest reburial after decomposition.

PILLET, M.—*Le temple de Byblos.* This account gives a detailed plan, and a discussion of the view of the temple on a coin of Macrinus, A.D. 217–18, treated more fully in a following paper. It is assumed that the entrance was from the east, the cemetery of the kings lying to the west of the temple, close to the shore. A difficulty is, however, that the lower parts of four statues stand on either side of a doorway on the east side of the wide court on the west. As statues in Egypt always flank an entrance, this points to the entrance being from the west. If the approach was from the east, the statues must be regarded as standing in adoration, looking toward the shrine across the wide open court. The statues are only preserved up to the knee, and are in clumsy imitation of Egyptian style.

DUSSAUD, R.—*Note additionelle.* This note discusses the temple plan. The great pavement on the west is compared with the court of the temple at Jerusalem; a circular walling on the south is supposed to be for a *hanafiyeh*, or *Great Sea*, as at Jerusalem; it is about 16 feet across. Yet it is proposed that the entrance was on the north, while the use of a *hanafiyeh* is for ablution before entering the shrine, like the tanks at Serabit. Altogether there are reasons for each quarter being the front; much wider clearance of surroundings is needed, to understand the plan. The coin with a figure of the temple is figured, and a drawing of restoration is given. It seems to have been a large peristyle court, surrounding a conical stone on a square base; the entrance has a portico, decastyle, and there was also a porch entrance at the side. The account of

restoration by the king Yehavmilk describes a gold disc over the entrance, probably the Egyptian winged sun. The questions of the orientation of the temple are further considered with regard to the two entrances, one in the main axis of the court, the other at the side. Lastly, M. Dussaud decides for the statues having flanked the entrance to the *hekel*, and the sanctuary facing westwards.

Cuq, E.—*Condition Juridique de la Coelé-Syrie au temps de Ptolémée V.* This paper discusses the constitution of the region of Palestine and Southern Syria when it was given by Antiochos III as the marriage portion of Cleopatra, his daughter, 193 B.C.

In the reviews of this number, M. Dussaud deals with some important questions. He favours the derivation of the name Phoenician from *phoinix*, red, equivalent to *erythros*, which he connects with the Erythraean, or Red Sea, as referring to their origin. The *phoinix*, palm-tree, is therefore discarded as an etymology. Yet he agrees that the palm grows as far north as Beyrut, and points to changes in the vegetation elsewhere, and leaves the question debatable. A bronze lance-head with two lines of Phoenician, was evidently cast from a wax model. It is assigned to the 12th or 13th century, and raises questions about the forms of the letters. The spiked form of Hittite bronze axe, found at Beisan, is figured.

Vol. IX.

Dunand, M.—*La sixième campagne des fouilles de Byblos.* The amiable director of the excavations gives a detailed account of the method of this excavation, which shows a welcome change in the system of observation, on which remarks have often been made in the past.

Du Buisson, Mesnil.—*L'ancienne Qatna.* In the account of this site near Homs, the sphinx of the Princess Ata of the XIIth dynasty is described. It had been shattered in dozens of fragments, well reconstructed; but the material is not stated. Pieces of Cretan vases of Late Minoan style were found, and an Egyptian lotus bowl; otherwise the results are purely Semitic.

In the reviews, more than five pages are given to an analysis of Dr. Frankfort's studies on pottery.

NOTES AND NEWS.

THE excavation of the hill city of Beth-pelet (Tell Fara) is being continued this winter, especially on the northern end of the hill where probably lies the fortress of the Pelethites. The work will be carried on by the Hon. Director, with Mr. and Mrs. Starkey, Mr. Harding, Miss Tufnell, and a new student, Mr. O. H. Myers. There is also the promise of the kind help of Dr. Parker, as at Gerar. The cost of such wide clearances, which are necessary for scientific results, will be very heavy; and Lady Petrie remains behind in order to collect funds. All who care for the links of Egypt with Palestine, and for Old Testament history, should help forward the revealing of this important residence of the royal bodyguard of Pelethites.

Miss Caton-Thompson is going to South Africa, to take up the problems of the prehistoric age there. The meeting of the British Association next summer in that land will attract attention to the archaeological importance of Africa. Some explorers recently have assumed, strangely, that any early people discovered there must have preceded early man elsewhere.

Mr. and Mrs. Brunton, later in the season, resume their own work in Egypt.

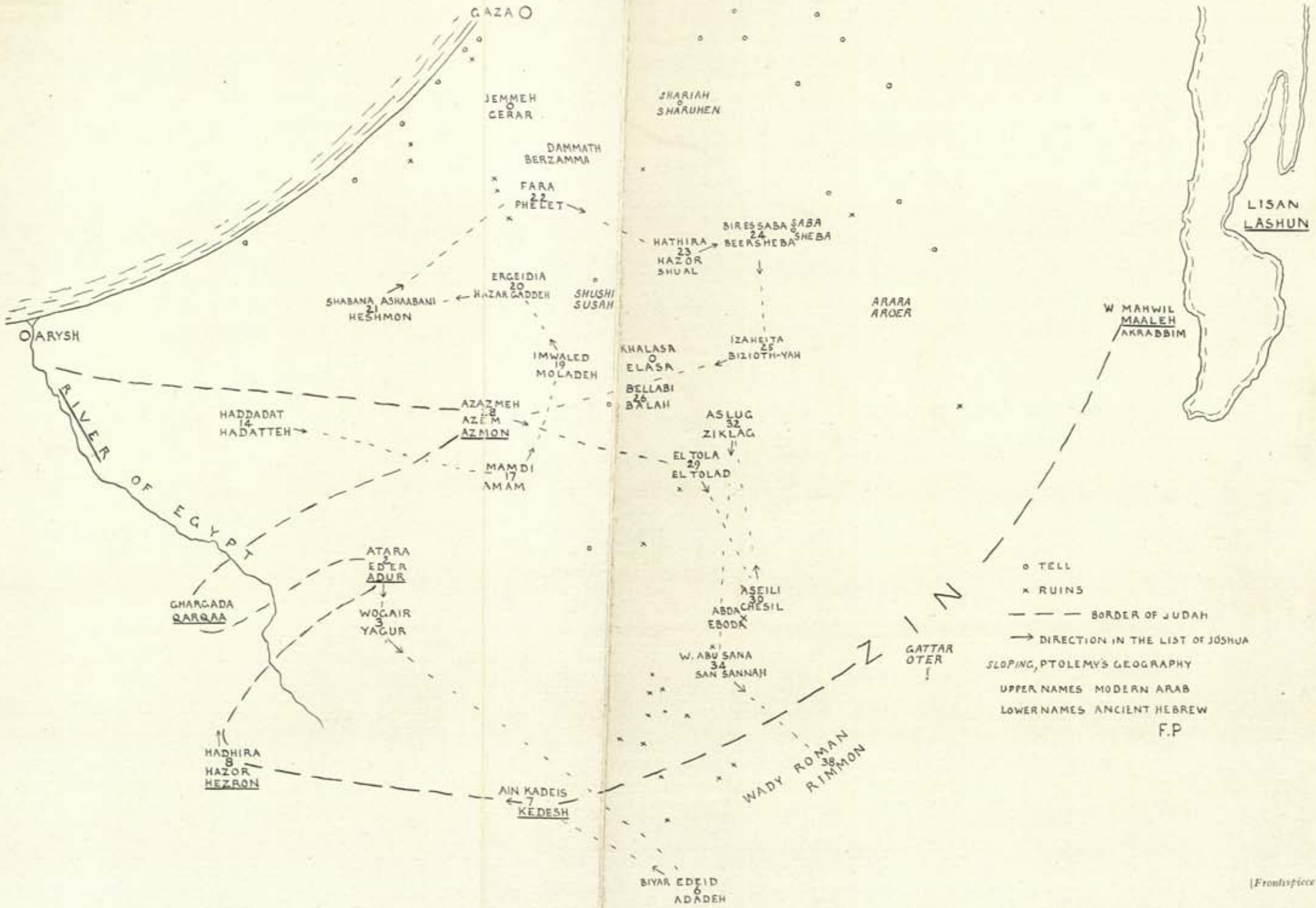
Dr. Newton Friend sends a note from Birmingham of his analysis of a lead net-sinker from Gurob. It contained ·028 *per cent.* of silver, which is three times as much as the richest Roman lead, and fourteen times the amount in modern commercial lead.

Gaming sticks of bone, with triple zig-zag lines on one side only, much like the prehistoric Egyptian (see *Prehist. Egypt*, xxxi, I, 2) are published in the account of "A Prehistoric Pit-house Village Site on the Columbia River, at Wahluke, Grant County, Washington," by Herbert W. Krieger (*U.S. Nat. Mus. Proc.*, lxxiii, pp. 1–29). The burials were all of ceremonial cremation; the skulls had been flattened by board pressure in infancy. A remarkable carved bone has circles and vandykes in relief, more like some early mediaeval work.

Sir Ofori Atta, a Gold Coast chief, who came to Buckingham Palace for his investiture, was accompanied by a living "soul," or double, dressed closely like the chief, except that he was bare from the knees down. This is an interesting variety of the *Ka* faith, which may explain double burials.

An interesting article in *Art and Archaeology*, for August, deals with the swimming stroke of the ancients, showing that Hittites, Assyrians, Greeks and Romans all used the alternate overhead stroke, like the modern Egyptians. There is no instance of the breast-stroke under the water.

We owe an apology for the lateness of appearance of this third part of the *Journal*. A fire broke out in the works, which has made a delay in the preparation of the blocks of illustration, and held back this number, and also the fourth part.



[Frontispiece

ANCIENT EGYPT.

THE SOUTH OF JUDAH.

THE South country is often mentioned as something out of the ordinary range of Palestine. Anciently it was not so dry as it is now, but it was never so regularly settled as the land to the north, owing to movements of the people during drought. Here David sheltered as an outlaw, and it has always been a wild border. It was in recent centuries the resort of fluctuating Arab tribes, and was scarcely ever visited in modern times, until Mr. (now Colonel) Lawrence and Mr. Woolley made a detailed survey in 1911 to 1914. This survey, and the later tranquillising of the district by British management, has opened up a region full of ancient sites; while from its nearness to Egypt it provides such close links with Egyptian history that it gives an historic basis for Palestine archaeology and the relations with Egypt.

The names of the 38 towns of this region in the book of Joshua are detailed in the list on p. 99 and are entered, so far as they can be identified, in the frontispiece map. Hitherto only a few of these names have been assigned to modern places, without any system, and without reference to the meaning. The modern map gives many names that are obvious equivalents of the ancient names, without any assumptions of corruption which have been so freely proposed. The two principles for our guidance in such identifications are, first, that the places should follow in some connected order (due to an official list, or to memory); second, that the Arabic name should have the same meaning as the Hebrew, and be thus the direct continuation of it. Of course there are occasionally mere continuations of a sound corrupted.

The material of the lists is given in a tabular form here, from the early records; it is hardly worth while to include the late condensation in Chronicles which adds nothing further. The best geographical list is that of the "uttermost cities of Judah" in Joshua xv, 21–36. This is partly repeated in Neh. xi, 25–30, at the re-settlement after the captivity. Much of the list recurs as that of the cities transferred to Simeon (Joshua xix, 1–8). There is also the list of the south boundary of Judah (Joshua xv, 1–4); and that of the haunts of David in exile (1 Sam. xxx, 26–31). Only the district south of Beersheba need here be considered.

The forms of the names in the English translation are misleading, as regards some letters; for purposes of identification we need to express letters uniformly, and therefore the following values are used here in transliterating the Hebrew:— vau, *u*; teth, *th*; yod, *y*; kaph, *k*; samech, *ç*; ayn, *o* (often altered to *kh*

or *g*) ; tzaddi, *tz* ; koph, *q*. In the map, the Arabic names are placed above their equivalents ; in the lists they are in *italics*. The list of the 38 towns is here followed in order (Arabic in *italics*) :—

1. Qabtz-EL, " the assembly of EL," apparently a sanctuary named first from its importance : it marks the Arab influence of EL, Allah, in contrast to the Hebrew worship of Yah. (On this antagonism, see nos. 25 and 29.) The position of this should be to the north of no. 2, Atara, but wide stretches of sand waste have covered that region and no names remain.
2. Oder, *Atara*, a name given to an open plain ; in most instances of surviving names the town has vanished, swept away or sand-buried, yet the name remains. This site is confirmed by being next to
3. Yagur, *Wogair*. After this, nos. 4 and 5 cannot be identified.
6. Ododeh, *Edeid*, probably the valuable position of the wells of Edeid, near the next point.
7. Qedesh, *Qudeis*. This site has been disputed, but on the map its position between nos. 6 and 8 leaves no doubt of the identification.
8. Hatzur, *Hadhira*. Though a common name for a town or settlement, this would always be one of the important sites as it catches the rainfall from a wide basin of the Gebel Helūl.
9. Ytnan was the end of a list, followed by another list of 29 towns so numbered in *v*. 32.

10 to 13, beginning the second list, cannot be identified, but the track is found at

14. Hadattah, *Haddadat*, towards Arysh. Nos. 15 and 16 are unknown.
17. Amam, *Mamdi*, lies to the east then, turning north,
19. Moladeh, *Imwaled el kheil* " the birthplace of the horse," perpetuates the Hebrew name, and gives the remainder of the name, showing the trivial origin of it. This is a curious case of survival.
20. Hatzurgaddeh seems to be the origin of *Ergeidia*, according to the relative positions.
21. Heshmon, " fatness," is evidently the *Ashaabani* district of the well *Shabana* or " fat."
22. Beth-palet, or phelet in Nehemiah, " the house of escape," is the modern *Tell Fara*, meaning " escape," which root otherwise takes *l* in *falata* " he escaped." This is the site of our excavations, last season, and continuing at present.
23. Hatzur Shuol, *Hathira*, is between nos. 22 and 24, Beersheba.
24. Beersheba has always been known without doubt. Its importance is due to being in the focus of a great drainage basin which ensures water supply.
25. Bizyuth-Yah, " the despising of Yah," or repudiation of Hebrew worship, was a name probably due to the neighbouring people of EL-tulad, or " the family of EL." This dominance of the worship of EL accords with the name of the assembly of EL heading the list. *Izaheita* is in the likely position and may be a corruption of the name.
26. Baaleh, or Bolah, seems to be *Bellabi*, by the position.
28. Ozena, or Azam, agrees with the district of *Azazma*.
29. El-tulad, *El-tola*, the " generations " or " family of EL " (*see* no. 25).
30. Keçyl may be 'Aseili valley.
32. Tziglag (Ziklag) has been assigned to *Aslug*, and the position among other places confirms this, as against other suppositions.

Jos XV, 21-36	Neh XI, 25-30	Jos. XIX, 1-8	Jos XV 1-4	1 Sam, XXX 26-31
1 Qabtz-El	1 Yeqabtz-El			
2 Oder *Atara*	(2 Yeshua		7 Adar	
3 Yagur *Wogair*			(1 Salt Sea	
4 Qynah			(2 Lashun *Lisan*	
5 Dymunah			(3 Oqrabbym	
6 Ododeh *Edeid*			(4 Zin	
7 Qedesh *Qudeis*			5 Qadesh Barneo	
8 Hatzur *Hadhira*			6 Hezron	
9 Ytnan			(8 Qarqoa *Ghargada*	
10 Zyf				
11 Thelem				
12 Bealoth				
13 Hatzur				
14 Hadattah *Haddadat*				
15 Qeriut				
16 Hetzrun				
17 Amam *Mamdi*				
18 Shema				
19 Moladah / *mwaled*	3 Moladah	3 Moladah		
20 Hatzurgaddeh, *Ergeidia*				
21 Heshmon, *Ashaabani*				
22 Beth palet, *Fara*	4 Beth-phelet			
23 Hatzur-shual, *Hathira*	5 H-Shual	4 H-Shual		
24 Bir Sheba *B.es Saba*	6 Bir sheba	1 Bir Sheba		
25 Bizyoth-Yah, *Izaheita*		(2 Sheba, *Tell es Saba*		
26 Boleh *Bellabi*		5 Balah, Bilhah (chr)		
27 Oyym				
28 Ozem *Azazma*		6 Azam	9 Azmon	
29 El-tulad *El-tola*		7 El tola	(10 river of Egypt)	
30 Kesyl *'Aseili*		(8 Bethul		2 Bethel
31 Hermah		9 Hermah		11 Hermah
32 Tziqlag *Aslug*	7 Tziqlag	10 Tziqleg		1 Tziqlag
33 Madmannah	(8 Mekoneh	(11 Beth markaboth		
34 Gan Çannah *Sana*		(12 Hatzar Susah *Shushi*		
35 Lebaoth		13 Beth Lebaoth		
36 Shilhym		(14 Sharuhen, *Sharieh*		
37 Oyn		15 Oyn		
38 Rimmon *W. Roman*	9 En Rimmon	16 Remmon		
	10 Zareah	17 Ether *Gattar*		
	11 Yarmuth	18 Oshan		12 Kur Oshan
	12 Zanoah	19 Baalath-bir		(5 Aroer *Arareh*
		20 Ramoth of South		3 S. Ramoth

34. Çançannah is probably in *Wady Abu Sana*, as that is on the way to the following—

38. Rimun, Rimmon, is the valley of pomegranates, *Wady Roman*.

In the other lists there are a few more places to be noted. In Joshua xix, after Beersheba, is

2. Sheba, *Tell es Saba*, to the east of the *Bir es Saba*.
11. Beth Markaboth, "of the chariots," and
12. Hazar Susah, "place of the horses," are connected; by the position between Ziklag and Sharieh, it is evident that this is *Esh Shushi*.
14. Sharuhen is generally identified with *Tell Sharieh*. It was probably the city Sharhana, which the Egyptians took during the expulsion of the Hyksos.
17. Oter must be in the South, as it is next to Remmun, and the *ayn* seems to pass into the modern *Gattar*.
20. Ramoth of the south appears again in David's list, but the name seems lost. David's Aroer, no. 5, has been placed at *Wady* and *Bir Arara*, toward the Dead Sea.

Regarding the geography of Ptolemy, the only way to study it is by trying to break it up into the original statements from which he worked. By plotting it out, and then searching for three or more places in a straight line, it is probable that a road line can be recovered. Then the distances along that line will give the distances actually used for the geography. Differences of 2′ or 3′ are negligible, as the latitude and longitude are only stated within 5′. On Ptolemy's map of this region, the professed north is really N.N.E. The name of Eboda is plainly *Abda*, now "a ruined *town*"; from this, therefore, Elasa would be the Arab *Khalasa*, an important town and junction of roads. Berzamma is evidently a well, Bir, and is in line with Beitagabra and Jerusalem; at this position is the district of *El Dammath* at the right distance for Zamma. Drusias, named after Drusus the brother of Tiberius, must have been a very important city under Herod, and the great Herodian building at Hebron shows that to have been the most important place in this region at that time. It is in the same position as Drusias, especially in relation to Engedda, *Ain Gedi*. Thamira, north of this, is obviously *Wady Ta'amira*. Esbus, between Gaza and Beitagabra, agrees in position with *Tell Idbis*.

It is surprising that, without any special search for ancient names in this South country, the names gathered in this first survey should supply half of those recorded here in the book of Joshua. The names of small districts, two or three miles wide, without any remaining ruin mentioned, give the most frequent identifications. Only a third of the names are found on wells or modern sites; the sand dunes, blown over the land, have obliterated the ancient places, and in this desolate region the name clings to the ground and, in many instances, is all that has survived.

FLINDERS PETRIE.

THE SHISHAK MIGRATION.

OUR excavations at Gerar have produced repeated evidences of a movement from Central Asia to the West, at about 950 B.C. In the last year's work, further instances of such a movement have come to light, and the whole view may now be focussed together. The various tokens of this movement are as follows.

At Gerar there were found pottery models of square waggons, with a division from front to back, and with two types of pottery wheels belonging to them, one smooth and the other knobbed. These belonged to about 970 B.C. Such model waggons, and both of these types of wheels, are found at Anau in Turkestan, 250 miles east of the Caspian. Similar knobbed wheels occur in the Treasure of the Oxus, from 300 miles further east. They were also brought into Assyria on their way westward. The knobbed wheel is a form suited to avoid sinking in loose surface sand, and belongs therefore to desert dwellers; the use of such waggons and wheels must have been familiar to the Scythian Hamaxobioi (waggon-dwelling) and Hamaxoikoi (waggon-homing).

Two types of bronze arrow-head appear in the west from Central Asia. One at Gerar, in 970 B.C., has a tang at the side of the socket, as found at Tomsk, Perm, and the Caspian. The other, at Gerar, by 900 B.C., is the triangular-bladed arrow-head of Minussinsk, Altai, Perm, Siberia and S.W. Caspian.

The broad-bladed form of iron dagger is between 980 and 920 B.C. at Gerar, a type belonging to Anau, the Caspian, and the Caucasus. A bronze lance-head, with a rhombic mark incised on it, is dated to 950 B.C. at Gerar, and this mark is a regular Assyrian emblem.

Lastly, all the pottery figures of oxen at Gerar, more than a dozen, centring at 950 B.C., are humped: this type is Central Asian, and not found west of Mesopotamia. The movement of the people who brought in all these products must have been within a few decades, as the toy waggons and humped oxen would be forgotten by a following generation.

This movement, dated to about 970 B.C., naturally links with Sheshenq (Shishak), the "man of Susa," entering Egypt at that time, for it would have been senseless for such migrants to reach the extreme south of Palestine unless on the way into Egypt. The name Shushinak is that of the national god of Elam worshipped at Susa, who was also a great deity among the Persians (see Sykes' *Persia*); the "man of Susa" was a localised name like "Our Lady of Walsingham" or of Loretto. Whether Sheshenq was an Elamite or a Persian with a theophoric name, or directly named from Susa as his home, is not evident.

The careless reading of the genealogy of Horpasen has led to supposing that Sheshenq was of Libyan descent. To read it thus requires the insertion of a descendive, "son of," which does not exist; it also makes a "royal mother" appear as an ancestor two generations before that line took the rule under Sheshenq, and it assumes that the names of a man and wife both recurred together at four generations apart. There is no reason for Sheshenq being supposed to be Libyan, and his name labels his origin plainly.

Now a further aspect of the subject comes into view. Looking at the parallel migration of Turkomans in the XIth century A.D., the Turkish troops entered Egypt by A.D. 1062, and another branch took all Asia Minor during A.D. 1074 to 1084. In 970 B.C. the earlier movement similarly seems to have branched into Asia Minor and reached Lydia, whence, a century later, they took shipping and went on to Etruria. This was recognised in Roman times, as a deputation of the Sardians read an ancient decree to Tiberius, in which the Etruscans recognised their kinship. The Babylonian connection with the Etruscans has already been stated, by Randall MacIver and others, on the ground especially of the divination by the liver, or hepatoscopy, being on exactly the same model among both peoples.

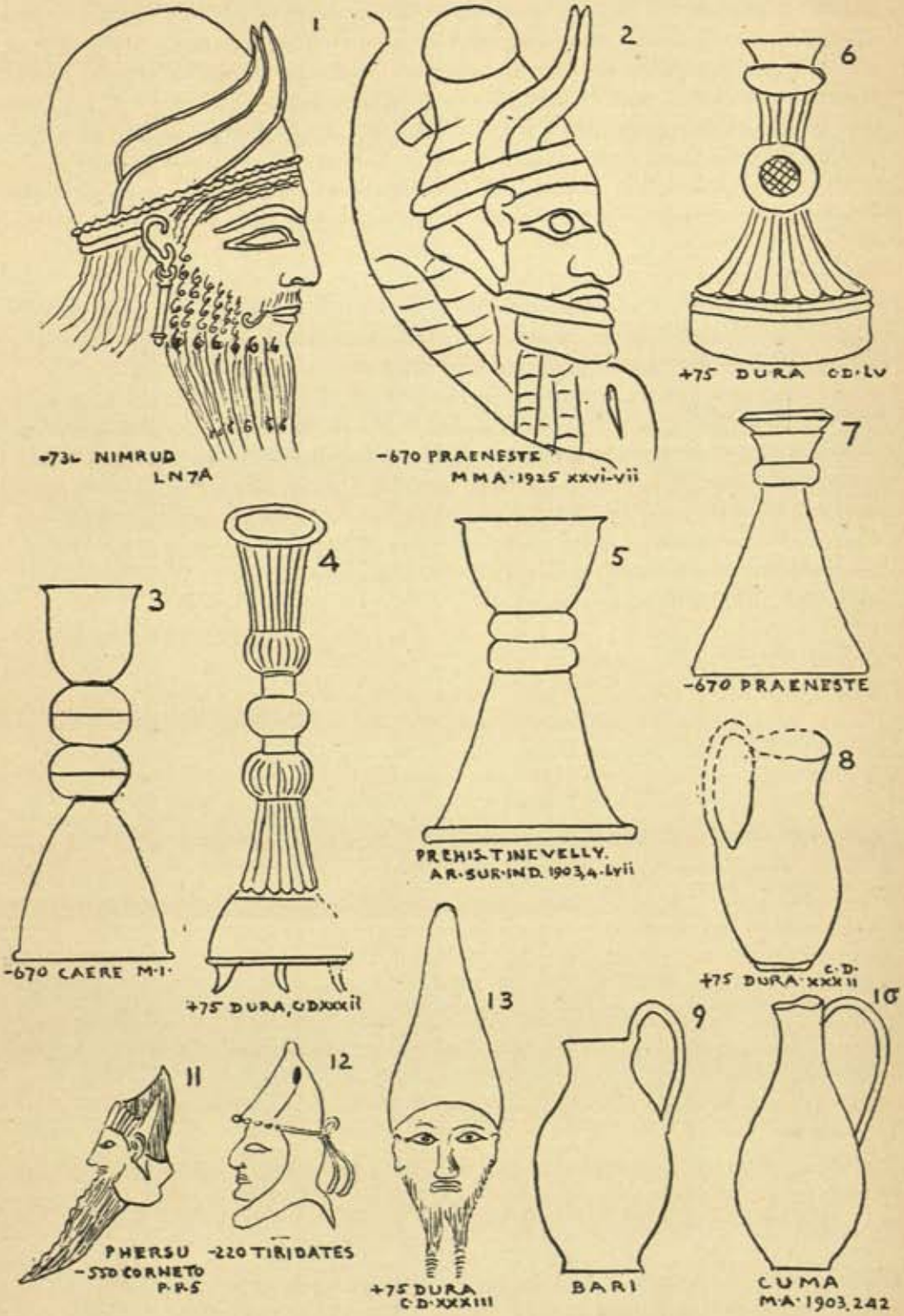
Further evidence of this connection is now to hand. The horned head-dress of divination in Babylonia (fig. 1) appears on a winged sphinx, which is embossed on an Etruscan bronze stand from the Barberini tomb (fig. 2).

The usual stand for vases of offering in Etruscan tombs is of the form of a cone with two globes over it, supporting the vase (fig. 3). The same form appears in an offering scene at Dura in Mesopotamia, of Roman age (fig. 4). It also passed out eastward to India, where it is found in Tinnevelly (fig. 5). Another form with only one globe is found in the offering scene at Dura (fig. 6), and appears in the Barberini tomb in Etruria (fig. 7).

The form of offering vase in the Dura scene (fig. 8) is also Italian, as fig. 9 from Bari and fig. 10 from Cumae.

Lastly, the Etruscans had a sort of mystery play, which is represented two or three times in the tombs. In this, a bearded man wearing a peaked cap (fig. 11) attacks another man, apparently an Etruscan, with the aid of a dog; the attacker is finally beaten off and flees away. The name of this enemy is Phersu, and, in view of the Mesopotamian connections above, this can hardly be other than a Persian. The cap appears on coins of Tiridates II, 248–210 B.C. (fig. 12), and the cap and beard appear on the figure of a magus or sacrificing priest at Dura (fig. 13). This performance of the fight seems to commemorate a defeat of the Persians in course of the migration from Central Asia into Mesopotamia. A parallel to this was the commemoration by the Romans of their defeat of the Etruscans, by annually selling a man dressed as a Sardian or an Etruscan, in the open market (Plutarch in *Roman Questions* and *Romulus*). There are, then, three or four fresh evidences of the Etruscan origin from Middle Asia, affirming the conclusion derived from the hepatoscopy. The close historic parallel with the mediaeval Turkish movement conquering Egypt, and Asia Minor, gives good reason to accept some such migration as having been the basis of the conquests by Sheshenq and the Etruscans a couple of thousand years earlier.

The view of the whole period takes shape somewhat as follows. By about 1000 B.C., the East was upset owing to the advance of Assyria smashing Babylon, and a body of men from Turkestan began moving on Babylonia. They were obstructed by the Persians whom they defeated. The migrants then passed on westward and, within a generation, reached Egypt and Asia Minor. The rapid movement of the migrants shows that they were not a tribal party with property, but a fighting body of men headed by condottieri, such as the Persian or Elamite Sheshenq. Thrusting westward, these troops, as banditti or as mercenaries, passed on, some into Asia Minor and others down Syria. Skirting round the fighting kingdom of Judah, they found a free passage through Edom, which



EVIDENCE OF ASIATIC MIGRATIONS INTO EUROPE.

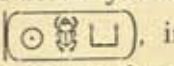
ETRUSCAN AND ITALIAN CONNECTIONS WITH MESOPOTAMIA, PERSIA, AND INDIA.

had been overrun by David while their king was in exile in Egypt. The leader Sheshenq entered the Egyptian service with his men, settled at Bubastis, and in due course King Pasebkhanu gave his sister to the exiled king of Edom and his daughters to Sheshenq and to Solomon. For the family relationships, see *Egypt and Israel*, p. 68. During the rule of the XXIst dynasty at Tanis, on the far east of the Delta, the Libyans had pushed into Egypt on the west, and the XXIInd dynasty had to bring them to obedience by setting princes of the family to rule them, but with no more of Libyan descent than there is of Welsh descent in our Prince of Wales. Those of the eastern migrants who went into Asia Minor pushed along to the Aegean, as the Turks did later; within a century, finding that their devastation had impoverished the land, they shipped over into Etruria, where they formed a ruling class. A parallel to this may be seen in the Norse subduing Normandy, and, after absorbing the civilisation there, passing on into England as a conquering aristocracy. It may be asked whether there is any trace of these fighters, in the history of David. As they must have been at Bethpeleth as well as at Gerar, it is probable that they may be the bodyguard of Pelethites employed by David (for the difference of final *tau* or *teth* is not material). This guard was certainly of the south, coupled with the southern Cherethites near Ziklag (1 Sam. xxx, 14); they were ruled by Benaiah of Kabzeel in the south. They disappear after Sheshenq entered Egypt. If this identification be accepted, then David really dominated Israel by a bodyguard of Cretan and Turkoman mercenaries.

FLINDERS PETRIE.

A STATUE OF KHEPER-KA-RA.

THERE is in the British Museum the upper part of a standing statue of black granite. Only the torso remains, the arms are broken off and the face is greatly damaged. The height of the fragment is 2 ft. 6½ in. It was presented by Colonel Howard Vyse in 1839; it is stated to have come from Memphis, though there is nothing to show where it was actually found.

On the belt is the cartouche  , inscribed in reverse order, so that it reads Ka-kheper-Ra. I am not aware of any other example of a cartouche in which the sign of the sun is placed at the end of the throne-name instead of at the beginning. As the date at which the statue came into the possession of the Museum precludes any idea of a forgery, the unusual writing must be accepted as showing the order in which the signs are to be read.

The statue is now placed in that part of the Sculpture Gallery which belongs to the late period, the name being taken to be that of Nekht-nebf (Nectanebo I), whose throne name was Kheper-ka-Ra. Prof. Petrie, however, considers that the statue has been wrongly dated, and that it really represents the Kheper-ka-Ra of the XIIth dynasty, *i.e.* Senusert I (*Student's History of Egypt*, III, 386).

To prove the case, it is necessary to compare not only the known portraits of Senusert I for the likeness, but also statues of both the XIIth and the XXXth dynasties for the style. For this comparison I take the statue of Kheper-ka-Ra, Nekht-nebf, in the Bibliothèque Nationale at Paris. I will call the British Museum statue (fig. 4) Senusert, and the Paris statue (fig. 5) Nekht-nebf, in order to distinguish the two.

Though the Paris statue is headless and armless, the torso is undamaged and can therefore be compared very well with the Senusert figure. Even at the first glance the difference in style is at once apparent. In the Senusert statue the intention is architectural, with broad surfaces; in the late figure the artist has concentrated on rounded forms, smoothing away all harshness till the curves are almost feminine in their softness, and the details of the anatomy are lost. The difference of polish on the stone in the two figures is also marked. The mirror-like vitreous polish of the Paris statue is characteristic of the late period from the XXVIth dynasty onwards (*cp.* von Bissing, *Denkmäler*, pls. 69 and 73b), whereas the polish on the Senusert statue is not only less brilliant but differs in quality.

The details of the dress, as far as they remain, again show a difference according to period. The loin-cloth of Senusert, as far as it can be seen, is pleated in straight folds; and in other Middle Kingdom and early New Kingdom standing statues the folds are usually represented in the same way, the lines hardly curving at all at the top till the middle of the body is reached. In the Nekht-nebf figure, the pleats begin to curve from the middle of the left thigh; and this is also the case in another Nekht-nebf statue in the British Museum.

Details of the form and pleats of the *nemes* head-dress, in the Old, Middle and New Kingdoms have been worked out by Engelbach in the *Annales du Service*, XXVIII, pl. III. On reference to his classification it will be seen that the *nemes* of the Senusert figure (fig. 3), with its bands of unequal width, approximates to the Middle Kingdom type, while the even bands of Nekht-nebf are certainly late. The even bands of the *nemes* continue from the New

Kingdom down to the Ptolemaic period, as the statue of Ptolemy Philadelphus shows (Bissing, no. 104). The pigtail of the *nemes* is not shown in either the Senusert or the Nekht-nebf figures, on account of the height of the support at the back.

Though it is usual in Middle Kingdom statues not to continue the support beyond the shoulders, instances are not unknown (Petrie, *Tanis* I, pl. xiii, 1, 2, p. 5). The leather flap which holds the head-dress in place is carefully rendered, very different from the careless representation in the XXXth-dynasty head from Abydos (Petrie, *Abydos* III, pl. xxviii, 4).

The uraeus on the Senusert statue (fig. 2) is curved in folds like A6 of Engelbach's series, though the folds are closer together than in Engelbach's example. A6 is definitely dated to Senusert I, which is one more proof of the early date of the statue under consideration. The tail of the uraeus is continued till it touches the back support.

We come now to the portraiture. In the Senusert statue, the square face with high cheek-bones and a general expression of force and virility is quite at variance with the softly rounded forms and gentle delicacy of the portraiture of the XXXth dynasty (Petrie, *Abydos* I, pl. lxx, 12, and III, pl. xxviii, 4). The Paris statue has no head, nor has the similar statue of Nekht-nebf in the British Museum ; and there is, as far as I know, no portrait of that king in the round. There is, however, in the British Museum a portrait in hollow relief of Nekht-nebf (*History*, III, fig. 160) ; this shows a man with a nut-cracker profile, the mouth falling in between the prominent nose and chin. Nothing more unlike the Senusert statue can be imagined. When the Senusert head is compared with the Koptos portrait, also in hollow relief (Petrie, *Koptos*, pl. ix), the likeness is at once apparent. In comparing the statue with the statues of that king found at Lisht (fig. 1), allowance must be made for the inveterate habit of almost all

FIG. 4.—SENUSERT I. XIITH DYN. BRIT. MUS.

FIG. 5.—NECTANEBO I. XXXTH DYN. PARIS.

Egyptological photographers of taking a portrait from so far below that the spectator is looking up the nostrils; this defect is due to skying in museums. The upper part of the face is thus liable to be foreshortened and the features, as in this instance, are distorted. In spite of this, the likeness between the two figures is very marked; there is the same square face, the high cheek-bones, the rather narrow eyes set at a downward angle towards the nose, the fullness of the under eyelid, and the same square determined chin, though bearded in one and unbearded in the other. The mouth is greatly damaged in the British Museum Senusert, but the smiling effect is the same as in the Lisht portrait. The level brows in our statue are emphasized by a technique known in the Tanis head of Amenemhat I (Petrie, *Tanis* I, pl. xiii, 1). The brows of the Lisht statue, especially the left one, suggest a horizontal line, as can be seen by noting that the height of the forehead between the brows and the head-band continues equal throughout its length. It is, however, in delicate nuances of this kind that the distortion of the wrong point of view in photographing becomes lamentable. The naso-labial folds on the cheeks are rendered in the same way in both statues. The ears in both figures are of natural size; the exaggeratedly large ears found in sculptures at the end of the dynasty do not appear to occur till Senusert III. Though the nose in the British Museum statue has been broken away, enough of it remains for comparison, had a scientific photograph of the Lisht figure been available.

The difference in the anatomical rendering between the Senusert and the Nekht-nebf figures is another point to be remarked. In the Senusert, the artist realised the underlying structure of the human body. The sternal ends of the clavicles are indicated, as also the hollow at the lower end of the neck between the clavicular ends of the sterno-mastoid muscles; the acromion process on the shoulder is faintly marked, as in life; the lower border of the ribs is visible on each side of the body; the projection of the scapula disappears behind the back support, but the line and modelling of the trapezius muscle can be seen; the upper edge of the navel shows the slight overhang which is sometimes found in certain persons. On the fragment which remains of the upper arm, the deltoid and biceps muscles are well indicated. Compare these details with the Nekht-nebf figure, where the clavicles are represented by a ring round the neck, the muscles of the chest and abdomen are merely rounded masses without any real form. In another Nekht-nebf figure now in the British Museum the same characteristics are visible; part of the arms remain, and these show no feeling of the sculptor for anatomical structure, they are merely cylindrical. The navel is merely a round hole. (*Cp.* also the anatomical modelling on the statue of Amenemhat III, Cairo Museum.)

The only inscription on the Senusert figure is the cartouche on the belt, for the back support is uninscribed. The hieroglyphs show a marked distinction from the similar cartouches on the belt of the Nekht-nebf figure, even apart from the unusual arrangement of the signs. The Senusert cartouche is somewhat square in outline, approximating more closely to the shape of the cartouches on the Deir el Bahri statues of Senusert III. The horizontal line of the  sign is the same width as the vertical lines, as is also the of Senusert III, whereas the of Nekht-nebf has a thick base with rounded top, which is a rough attempt to represent the upper arm as seen in the careful hieroglyphs down the support at the back of the statue. In the Senusert cartouche the  beetle has a three-lobed head and a body with straight sides,

giving a square effect ; the front legs rise from the upper " corners " of the body in an upward curve ; the middle legs begin immediately under the upper pair and turn downwards with a slight curve ; the last pair start from the lower " corners " of the body curving downwards at once, turning inwards again with so slight an angle as to be almost a curve. In the Nekht-nebf cartouche the body of the beetle is too roughly made for any distinct shape to be seen ; the head is two-lobed ; the upper legs turn downwards when leaving the body, then curve up at an acute angle ; there are no middle legs ; the lower pair start almost horizontally from the body before turning downwards at a sharp angle. The ⊙ sign in the Senusert cartouche is not dotted ; in this it is like the same sign in the Nekht-nebf cartouche ; but the presence or absence of the dot is no evidence of period, for the ⊙ sign occurs with and without the central dot on the statues of Senusert at Lisht.

On all counts, therefore—style, method of working, physiognomy, and anatomy, as well as details of *nemes*, uraeus, loin-cloth, and hieroglyphs—we claim that the British Museum statue represents Senusert I and not Nekht-nebf.

My hearty thanks are due to Dr. H. R. Hall for the facilities given me to examine the statue in great detail and also to have it photographed.

M. A. Murray.

HAND SPINNING IN MODERN EGYPT.

Flax Spinning.

It is a rare thing nowadays to find flax spinning on a hand spindle in Egypt, though wool spinning is often enough seen. Flax is considerably grown, but much is exported and the remainder largely used for making twine or rope, a purpose for which the thread is sometimes spun on a primitive type of hand-spinning machine. But hand-spindle spinning is still also occasionally used with flax thread for making nets and for other purposes, as described by Klunzinger long ago at Kosseir.[1] More rarely, women may still be found spinning fine thread for the weaving of a piece of linen on one of the village looms. Such spinning can be seen at Nahia, just north of Kirdasseh, near Giza. Nahia is a picturesque village of beautiful old houses, with jutting balconies and fine inner courtyards. Rich fields lie round it, but the desert edge is not far away. I shall not easily forget my first sight of the green waves of flax, bright in front of the dark stems of tall palms and, behind the palms, yellow sand and the Pyramids of Giza sharp against the sky. It was a sight most beautiful in itself, and it also held promise of interest in the industry to be seen in the village, and the possibility, always in the mind as one watches village life in Egypt, of light to be thrown on the past from the primitive present. The earlier processes of preparing the flax could not be seen at the time of my visit but they were described to me as follows. When gathered, the flax is laid to soak in water, to soften and disunite the fibres, the "retting," which takes about fifteen days, according to the temperature. Then it is raked, laid to dry, turned, and then dried again—this is equivalent to "grassing." When dry it will keep for two years, and is said to be better after keeping for a year or so than when freshly gathered.

My informant did not mention the ripple, an iron comb used for removing bolls from the freshly gathered flax; he may have forgotten it.

The further processes of preparation were going on in a large inner court-yard, and the friendly people told and showed me all they could in the time. When required for spinning, flax must be "scutched," and the first part of scutching is the breaking or bruising of the flax. At Nahia this is done by beating it with a wooden mallet on a large stone (fig. 1); several stones were arranged against the side walls of the court for this purpose. After the breaking comes the scutching proper, the removal of the tow by scutching blades. This is shown in fig. 2; the worker simply beats the broken flax with a large wooden fan or bat, to shake out all the loose pieces. These two processes are always carried out by men, but the next, "hackling," is the work of women, and two of them are seen at it in fig. 3. The flax is drawn through a comb, the metal teeth of which are set upright in a metal plate on a wooden block. Now the flax is ready to spin.

This is here, as in other places in Egypt, usually done on a "dulab," a kind of spinning machine shown in fig. 4. This photograph was taken at the Agricultural Exhibition at Giza, and the "dulab" came from Zifta, but a precisely similar machine and process were seen at Nahia. The man spinning

[1] *Upper Egypt.* C. B. Klunzinger, p. 305. Fisherman making thread with spindle.

1.—Scutching Flax: First Process, Breaking with Wooden Mallet on a Stone. Nahia.
2.—Scutching Flax: Second Process, Beating it with Wooden Fan on Stone. Nahia.
3.—Hackling Flax on a Comb with long Metal Teeth.
4.—Dulab, or Spinning Machine, from Zifta.

has the flax round his waist, and he walks away backwards usually spinning one thread at a time, using both hands to draw and even out the thread while a boy turns the wheel. By a reverse movement, winding is effected on to a bobbin on the " dulab " while the man walks forwards to it. In the photograph the man is seen spinning two threads at once, one with each hand, which he did in response to my telling the little group of lookers-on of the ancient Egyptian spinners who were so skilful that they could spin two threads at once. His feat was evidently highly regarded, but it was not equal to that of the damsels of former days, nor indeed could that be emulated by the hand-spinners of Nahia. The women there can produce a fair thread, but though dexterous they were not very swift, and I did not feel the admiration and surprise so often excited by the skill of the cotton-spinners of the Sudan. Yet their spinning has interesting features, and is even regarded as something of a wonder by the people round. When I discussed it beforehand, my informant laughed, and said, " I suppose you want to see the women who spin through the mouth ! " And, indeed, the women of Nahia do spin through their mouths—they let the growing thread run between the lips so as to keep the fibres even and moist. The flax is held in the left hand, close to the mouth (figs. 5, 6), and the spindle is twirled, whorl downwards, by the thumb and first and second fingers of the right hand. The spindle is allowed to drop and spin but is usually controlled in the hollow of the hand, and the spin is very short. I did not see any rolling of the spindle on the thigh, but the women were spinning yarn to be woven into linen for themselves on the looms of Kirdasseh, and that shown me was soft-spun and suitable for weft. It may be that they would put a harder twist on for warp thread and roll on the thigh for this purpose, but into this, unfortunately, I did not enquire.

So far, our study of the present at Nahia. Now, how far back can we trace any of the tools and methods in this flax industry ?

Tools.—The breaking of flax by beating it with a mallet over a stone is a common early way of doing it ; it is represented at Beni Hasan, is mentioned by Pliny (XIX, 3), and it was formerly practised in Ireland, among other countries. The interest here lies in the wooden mallet, *el durs* (fig. 10), an implement described by Sir Flinders Petrie as " a primitive form which has not yet been superseded " (Petrie, *Tools and Weapons*, p. 40). That used at Nahia had a heavy longish head with a cylindrical handle, cut in one block of wood, and it was extremely like some of the mallets figured in *Tools and Weapons*, especially figs. 61, 64, on pl. XLVI. Of course, such mallets were, and are, used for may different purposes. In this flax-beating they get worn to a waist (fig. 11) ; a similar wearing is seen figured in *Tools and Weapons*, pl. XLVI, figs. 64, 65. There is a mallet which is also similarly worn, in the British Museum, one presented by Somers Clarke, no. 30754, case C, Fifth Egyptian Room.

The stones lying on the floor along the walls of the court, used for the beating of the flax, were very suggestive of the blocks along the walls of the XIIth-dynasty weaving model discovered by Winlock (*Ancient Egypt*, 1921, pt. IV), but there is no direct evidence as to what the women sitting behind the blocks were doing. They may have been beating flax on the blocks or have been engaged in some later process, some preparation of a rove by hand, as suggested by Ling Roth. The women of Nahia made no further preparation of the flax after combing it, so I received no light on this subject from them.

5, 6.—Flax Spinning through the Mouth, Nahia. 7.—Flax Spindle, Nahia.
8.—Wool Spindle, Darau, Upper Egypt. 9.—Boy Spinning Wool, Nahia.

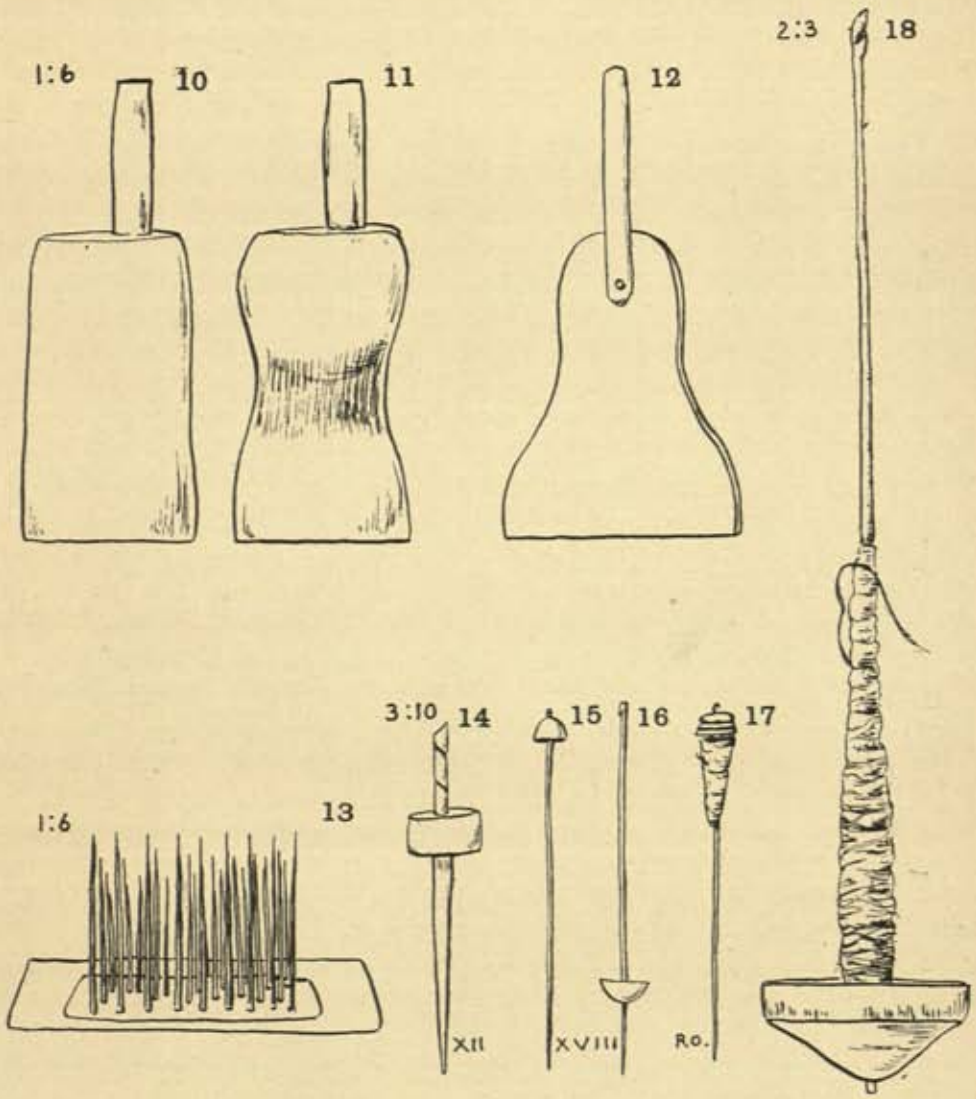
One thing is certain, that the spinners of Beni Hasan, and of the model, spin from a long prepared rove, and this must have facilitated the spinning and doubling shown on two spindles. The only reference I have found to any practice remotely resembling this is an illustration in Klunzinger's *Upper Egypt* (p. 305) of a fisherman doubling thread by the help of two spindles and a skein round his knees. I still hope some day to come upon a similar practice in some lost corner of the world.

The fan or scutching blade, *el minfada* (fig. 12), is not so easy to parallel as the mallet; there is one implement from Egypt similar to it in a wall case at the British Museum, no. 5409, cut out of one piece of wood, however, while in our blade the handle is a separate piece fastened on, obviously a late feature.

The comb or hatchel, *el misht* (fig. 13), with iron teeth used for hackling, also does not appear very primitive. Pliny mentions the combing of flax with iron teeth (XIX, 3), but the only combs I have seen at all like this particular type are some heavy English ones in the Bankfield Museum, Halifax.

The flax-spindles seen at Nahia had a wooden or metal stem with a notch at the top and a wooden whorl at the bottom, the specimen figured (figs. 7, 18) is one with a metal stem. This is a type quite unlike most of the ancient Egyptian spindles yet discovered; the only one which it resembles is a unique spindle of the XVIIIth dynasty from Gurob (fig. 16) (see *Gurob*, Brunton and Engelbach, pl. 13, fig. 8). The Gurob spindle, which was found with the whorl in position on the stick, has a distinct notch on the top and a wooden whorl at the bottom; there is no doubt whatever that such a spindle must have been spun whorl downwards, like the spindles of Nahia. But this spindle is a solitary instance of such a position of the whorl; all other ancient Egyptian spindles yet discovered, so far as I know, which show a notch, or a groove, or a hook for the thread, must, from the position of these and the whorls, have been spun whorl uppermost. The main types of spindles of the XIIth and XVIIIth dynasties and of the Roman period are shown in drawing (figs. 14, 15, 17) to illustrate this. (See *Tools and Weapons*, Flinders Petrie, p. 53, pl. 65, figs. 138–43.) The typical XIIth-dynasty spindle (fig. 14) had a cylindrical whorl and a shaft with a deep spiral groove round it; the spindles of the Winlock model are of this kind, and they were spun whorl uppermost. Coned wooden whorls and domed limestone whorls were also used in this period. The typical XVIIIth-dynasty spindle (fig. 15) had a small domed whorl, and the thin stem had a cut across it near the top for a thread notch; it was spun whorl upwards. The spindle of the Roman period (fig. 17) is known with various types of whorl, its characteristic is the iron hook above the whorl to catch the thread on; it was spun whorl uppermost. The wool spindles used by the fellahin to-day are of this type.

Method.—The method of spinning at Nahia is that called Suspended Spindle, where the spindle, after being twirled, hangs freely in the air. It was the method of ancient Egypt, of Greece too, and of Rome—indeed, it was for centuries the method *par excellence* of the whole of the old world. But there were, and still are, very interesting local variations in the method, and these repay study. The chief peculiarity noted among the Nahia spinners was their "spinning through the mouth." There are references to such a practice in the classics, to even or to moisten the thread (Senec. Herc. Oet. 373, quoted by Daremberg et Saglio), and it is shown very clearly by the figure of a spinner



10, 11.—Mallets. 12.—Scutching Fan. 13.—Hackling Comb.
14–17.—Ancient Spindles. 18.—Modern Flax Spindle.

on a vase from Orvieto (Dictionnaire des Antiquités Grecques et Romaines. Daremberg et Saglio, fig. 3382, p. 1426). Catullus ascribes it to those august spinners, the Fates themselves: "Their hands duly plied the eternal task. The left hand held the distaff clothed with soft wool; the right hand lightly drawing out the threads with upturned fingers shaped them, then with downward thumb turned the spindle poised with rounded whorl; and so with their teeth they still plucked the threads and made the work even. Bitten ends of wool clung to their dry lips which had before stood out from the smooth yarn" (Catullus. *The Fates.* Transl. by Cornish. Quoted in *Craftsmen All.* Dryad Handicrafts). I know of nothing illustrative of any similar practice in ancient Egypt.

The special features which strike a student of the representations of spinners at Beni Hasan and El Bersheh are: (1) there is no distaff; (2) the spindles are spun whorl uppermost; (3) the spindle is rotated by rolling it on the thigh. These features seem unusual, because in the spinning with which we are more familiar, the classical, or the European type, the distaff plays an important part, the spindle is spun whorl downwards, and it is rotated by twirling it between the finger and the thumb. Schliemann, for instance, was so possessed by the idea that the Beni Hasan spinners must have had a distaff that he suggested that it might have been hidden in the vase or basket at their feet (*Troja,* Schliemann, p. 296). The distaff is not unknown in Egypt, it appears to have been introduced in Roman days, and there are rare examples like those in the museums of Leyden and Brussels made of split cane in a similar way to those figured by Gardner Wilkinson from Thebes (Manners and Customs Anc. Egyptians. Vol. 3, p. 136, fig. 355, 1, 4). I have heard of the use of a split cane or reed distaff in modern Egypt, but I have never seen it; in the Sudan I only once saw one used by a Berti man near Shirkela, in Kordofan.

In fact, the modern hand spinners of Egypt, whether of flax or of wool, all prefer to spin without a distaff, and so do the cotton spinners of the Sudan. In this particular, then, of spinning without a distaff, the flax spinners of Nahia follow the ancient way of the country; their mallet too, as already noted, is a primitive tool, but they spin with their spindle whorl downwards, and rotate it by twirling it between the finger and thumb, and here they follow European rather than Egyptian methods, and their habit of passing the thread through their mouth, while spinning, links them with Rome.

Wool Spinning.

Now, if we turn from this example of flax spinning to the wool spinning of the fellahin, very different inferences will be drawn. The very attitude of the boy spinning wool at Nahia (fig. 9) is characteristic; his uplifted hand shows how the raw material is held while the spindle is dropped and rotates whorl uppermost. Both men and women spin in this fashion all through the country; they do naturally give a twirl to the spindle with the fingers now and then, but one never has to watch them long before seeing them roll it on the thigh, whether they are sitting or standing.

The spindles that they use to-day are like the type of the Roman period. One from Darau, in Upper Egypt, is represented in fig. 8. The spinner to whom it belonged, whom I met in Omdurman, used to prepare her wool with the greatest care, washing it in river water, spreading it to dry on clean sand, and teasing it

out by hand. Her spinning was beautiful to watch, the yarn fine and extremely even, and she used to delight me by making it up into enormous balls, about 9 inches in diameter, very much resembling the great ball of flax yarn in the Ashmolean Museum at Oxford.

Wool spindles are usually larger and heavier than the one figured, and have a variety of whorls, sometimes round and sometimes square; occasionally a wooden hook or notch is cut at the top of the stick above the whorl, but the metal hook fixed into the top of the whorl is much more common. The stems of these spindles never have the true spindle shape; instead of tapering at both ends and bulging in the middle, they are merely slender sticks tapering at one end, and of such a length that they give ample room for the palm of the hand to rest on them while rolling them on the thigh.

If we now set what we know of this wool spinning against such knowledge of the ancient Egyptian craft as has come down to us from the monuments, models of weaving-rooms, and the actual spindles, we find the same method of spinning; the spinner holds the raw material in the left hand, rotates the spindle by rolling it on the thigh with the right hand, and then allows it to drop freely swinging in the air, whorl uppermost; also the hieroglyph for spindle, *khes*,  , showing the shape, position of whorl, and cone of yarn under the whorl, confirms this.

These remarks also hold good for the beautiful and interesting cotton-spinning of the Sudan, which cannot be described here.

Both these crafts, on the evidence available, appear to descend directly from that of ancient Egypt.

GRACE M. CROWFOOT.

EXCAVATIONS AT BETH-PELET.

AGAIN we have four hundred Bedawyn of the desert, and their children, actively at work for the British School of Archaeology in Egypt, but it is Egypt over the border, as they are digging " the uttermost cities of Judah " in South Palestine, under the direction of six excavators, to extract the history which lies there. That history has been the most intensive subject of belief and of disbelief, debated with ill-informed ardour on both sides. Yet the energy has all been spent in words and not in deeds. Even now it seems that but few people care to have the material facts opened out before them, and to know what were the actual conditions of those times which have been familiar to them by name alone. The mounds of the cities are waiting to be dug out, the history is lying there awaiting interpretation, enthusiastic students long to work all day at disclosing it, yet few of the public seem willing to supply the few thousand pounds needful to throw light on the narrative of the Old Testament. A farthing in the pound on the bill for luxury and amusement would do all that is wanted.

Here at Beth-pelet we are settled in the wilderness, 18 miles from the houses and shops of the hand-to-mouth levantine life of Gaza. The nearest drinkable water is fetched 11 miles by camel on alternate days from Khan Yunis, where there is also post and rail; on the other side lies Beersheba, 18 miles away. How to do anything under such conditions, in a place without any population or supplies, is the first question. The mobility of the Bedawy is our strength. So soon as pay is to be had here, the workers flock in, many of them already trained and competent from our previous excavations at Gerar. They bring their families to work with them, and settle down in their half-dozen rows of black goats'-hair tents. For our food, a man goes to Gaza one day and returns the next, bringing supplies twice a week. Milk is scarce to get, as there is barely any food for the cattle, but by enlisting seven milk-boys on the terms " no milk, no work," we squeeze enough driblets from the countryside.

The people here live in hope of rain. We had two days of storms which gave two or three inches' rainfall, and six inches at Jerusalem. This sufficed to encourage life again. Every little dried root began to show tiny leaves, and the moles started their affairs, throwing up long lines of mole-hills, 37 in one row along the side of a hill, about 4 feet apart. What they live on is hard to guess, and still harder to imagine how they live through months of drought. The Bedawyn have been ploughing a large part of the sandy hills, in the faith that they may raise a crop. Some have ventured on sowing, and a faint green haze shows up, only to wither hopelessly if rain does not come in two or three weeks. The ploughing is all done with a camel, scratching a little groove about 3 inches deep in the sandy waste, such that birds can eat up the broadcast grain.

How a people can thrive under such conditions we also can scarcely imagine; even in good times, the girls search the desert for the little bulbs and roots of the wild plants to eat, and in time of famine they hunt for food in filth like a London sparrow. A regular flow of wages, more than £100 a week poured into the district, is an immense benefit to both the physique and training of the workers. It looks strange to see a wild fellow with shaggy hair, and a dagger in his belt,

doing most patient and delicate work in clearing out a grave, a quarter of an inch at a stroke, fingering all the earth to ensure that not a bead escapes. They train up to be quite as serviceable as the Egyptians. Nor must they be thought inferior to our home population. The girls who carry baskets of earth, all day long, wear dresses of their own embroidering; the women weave complicated patterns for their great stomacher belts, and they are as precise and neat as their condition of life will allow. Such are the folk among whom one lives for months in open huts without lock or door. Bright and active, cheery and smiling, they trust to pull through as their forbears have done, with only a leaky hair tent to keep off the rain and cold, and burnt up in a six months' drought every summer. Without any of the lazy man's protections of sheltered trades and old-age pensions, they press to get eighteenpence a day for ten hours' labour. Latterly, they are at least relieved from Turkish exactions, and benefit by our honest control of the native police who keep back the desert raiders.

Work began this season on the north end of the huge mound, as that was the part nearest to the water supply and pasture, and had the best wind. These conditions indicated its importance and, sure enough, we unearthed the foundations of the Roman fort, 62 × 52 ft., and four or five feet thick. They were dug down far into the ruins of older buildings, and piled with large flints from the stream-bed. Of the actual walls, there were only a few squared blocks of the first course remaining, and the building had all been carried off for stone elsewhere. After all this was planned and photographed, it was removed. Then appeared confused fragments of the Greek fort, cut to pieces by the Roman foundations. Descending 15 feet, we uncovered the walls and floors of Shishak's fort, which remained up to five feet high, built of sound yellow clay bricks. Beneath the floor of one of the rooms was a kind of foundation deposit, of three bone figures. The largest is a Syrian god with conical head-dress; being without emblems, it is not certain that it represents Sutekh. The small figures are of the usual Hat-hor type. The left-hand one has what seems to be the ends of a girdle tie hanging down below the breast, which may be the girdle tie of Isis (*see* fig. below).

Bone Figures of Syrian God and Hat-hor Goddesses.

Of the age of the fort there can be no doubt, as after it was all ruined, and filled up with decayed brickwork of the upper parts, a corn bin was cut down through it seven feet deep, and this was later used as a rubbish pit, filled up with Greek pottery of 600 to 500 B.C. This would put back the date to before 800 B.C., and pottery of that age, or earlier, was found in the rooms. As the bricks and building are like those of Shishak at Gerar, at 930 B.C., the date seems assured. The rest of the ground at that level is being cleared as I write, and soon we hope to finish the record of that age and then to reach the fort of David and Solomon below it, the headquarters of the Pelethite bodyguard.

Adjoining the fort on the west is a building of uncertain age, a hall with two columns in it. It had been partly removed for stone to place in Roman foundations, and in the floor lay hidden three lots of Judaean coins of the age of Nero. They serve to date the latest use of the place. Before that, it had been looted for material, and in it were stones from some earlier building coated with fine stucco. We can hardly unravel all these changes now, as our main purpose is to clear the site of the fort down to the earliest level.

HALL WITH COLUMNS, ADJOINING FORT, AT BETH-PELET.

The hill, as described last year, is precipitous to the stream-bed on the east, and is cut off on the north and south by steep ravines ; only on the west side it needed a fortified wall, and there was no gateway in that. The inner end of the north ravine curled round, cutting into the north-west corner of the hill. Suspecting that this must have been the line of approach, we cleared down into the watercourse, and found the large blocks of limestone which formed the

foundations of the gateway. This gate was placed askew across the ravine; thus only a few men could approach the gate at once, and there was not any room to work a battering-ram. It was an ingenious form of defence, which has also been found elsewhere in Palestine.

Much of our work has been devoted to cemeteries of large extent. Four parts of this wide field have been opened up, and tombs ranging from 500 back to 1700 B.C. have been cleared. The most interesting feature is a row of at least five large complex sepulchres. Each has a stairway descending about ten feet to a subterranean chamber, with benches along the sides and back, on which lie bones crushed by the fall of the roof and rotted by damp, thus reduced to mere chips and dust bedded in hard mud. Much pottery was placed with these, as many as eighty vases—several perfect—in one tomb. They date from the early Philistine age, of about Sety and Rameses II. Half a dozen burials were placed in a single sepulchre, apparently all men in one, and probably all women in another case. The roofs, twelve feet or more in width, being only of marl two or three feet thick, have all fallen in, and the hollow has filled up with blown sand. The whole region has been invaded by a shallow sand dune, covering the old surface with a foot or two, or up to a dozen feet in depth. This has to be removed before any of the tombs can be traced, so in many instances it is scarcely worth while to pursue the search. From these, and from tombs reaching back to the Hyksos times, there will be a fine instructive series of pottery and other things—painted vases and metal objects—to represent the civilisation of Palestine, as yet so little understood.

FLINDERS PETRIE.

The Daily Telegraph sent out a special correspondent, Rev. C. B. Mortlock, to Palestine this winter, to study various excavations and report on the progress of archaeological research. A long series of articles entitled "The Bible and the Spade," excellently illustrated, is being published every Saturday in that paper, as a result of his investigations. It was heralded in the autumn by a series on Biblical research by Sir Flinders Petrie, Sir Charles Marston, Prof. Sayce, Prof. Langdon, and others. The present series began on February 2, 1929, with a historical introduction, succeeded by an article, the following week, dealing with the site of Beth-pelet and the discoveries there, with striking photographs of the imposing *tell* (*The Daily Telegraph*, February 9, pp. 12 and 16). Descriptions of the fortress site, and of our methods of work, were continued on February 16, when there was also an account of Mr. Crowfoot's own excavations in progress at Jerusalem.

REVIEWS.

Ein Frühgeschichtliches Gräberfeld bei Abusir. By HANS BONNET. 4to. 60 pp., 38 pls., 21 figs. (Leipzig: Hinrichs.) 1928.

This work describes the results of clearing a cemetery at Abusir, presumably near Saqqareh, which much resembled those known at Tarkhan, Abydos (*Tombs of the Courtiers*), and Bashkatib (*Lahun* II). Such work should, no doubt, extend our knowledge of the earliest dynasties, but to gain any further results the record needs to be very systematic and complete. Unfortunately this is not the case in the present publication. There is no complete register; out of 65 tombs the contents of only 23 are listed, and that list omits the very rare sandal tray, the tombs with painted Syrian pottery, and the almost unique mirror—the principal objects found. The common pottery is only given in photograph groups, and the distinctions catalogued are "long," "egg-shaped," and "cylindrical." The time scale of degradation fixed by the Royal Tombs' series is ignored. The stone vases are all drawn, however often a type recurs, on 20 plates, which must be hunted through to find the grouping. Even the scale is irrational, "about 1 : 3½"; if they had been published like all other series they would have taken 7 plates instead of 20. There is no mention of the skulls and bones found, which require measurement. In short, a fine opportunity of improving the past results has been lost by want of system. There is no necessity to be bound to a previous system if it can be improved on; but to go back twenty years in method is a thing much to be regretted.

The material plainly extends over the Ist to the middle of the IInd dynasty. Only two inscriptions were found: one on a black cylinder naming the temple of the *ka* of Neit; the other, of signs on a vase, is unpublished. The most important object is the copper mirror, of a type only once recorded before (*Sedment*, xxii, 3), and much older than the usual ovate form found in Egypt. This pear-shaped form only appears later when the Syrian influence of the XVIIIth dynasty came in, and it seems probable that it was an importation from Syria in the Ist dynasty. The tomb containing it is not catalogued, and there is no mention, in the text, of objects accompanying it. The Sedment example is of the reign of Den, but no further dating is attained here.

The discussion of the period of the graves is disappointing. Comparison piece by piece with dated examples is required, in order to amplify or correct what is known. The vague statements about types of pottery lasting long, cannot be seriously considered without quoting some definite examples, and debating what are the fixed evidences of period in each case. For instance, the Syrian painted vases here are accompanied by a vase, no. 109 (only found by reading over all the plates); this is closely like one in *Tarkhan* II, xxvii, 81c, of S.D. 80, or the age of Zet, and similar painted vases were found of the next reign in the tomb of Den (R.T. II, 46). Here these dates confirm each other, though depending on three sites linked together. We may hope that if any other such fine cemeteries are opened, the record will be such as to add as much as possible to our knowledge.

Deyr el-Muharraqeh. By UGO MONNERET DE VILLARD. 8vo. 35 pp., 16 pls. (Milano: *Tipografia Pontificia.*) 1928. N. P.

This is another of this author's excellent studies of Coptic architecture. The deyr is near Manfalut, and identified as Qûsqâm. It has been hitherto neglected, and recent changes have effaced much of its antiquity. The most important buildings in a great enclosure wall are the church and the fort. Abu Salih describes the place, and states that it was restored to its original condition by Sheykh Abu Zakari under Al Hafiz (1131–49). The altar slab is a tombstone, praying "God rest the soul of the blessed Kollouthos buried in the month Khoiak, day 15, indiction 15, year 463" = 747 A.D.; but this is not connected with the history of the deyr, the feast of which is on 6th Athyr.

The church is divided by four columns into nine squares, of which seven are domed; a narthex with domes is at the north side. This leads to a discussion of the whole group of domed churches. It was in the 12th century that the flat timber roofs, of the basilica type, were changed for domes, as at St. Menas 1163, St. Mercurios 1175. The reasons suggested are the dangers from fire and white ants. This time was at the close of the Fatimites and the entry of strong Turkish influence from Iraq. Hence there is much force in the comparison of the domed roofs with the domes and hemicycles of the church at Rusafa of 569–82, and the similar design at Gire in Fars of Sassanide work, 399–428. The latter in turn is considered to be derived from the fire-temple type. The domed roofing came west to Monte Cassino in 778–97, to France at Germigny les Près 806, to Milan at S. Satiro 875, and in Spain 980. In Armenia it appears in 628–40, and in the Balkans in the 10th century. In Syria it became usual between 1080 and 1190, as in Egypt. Seven of the plans are given for comparison. This is an excellent slice of the later history, but what of the earlier? Of the XVIIth dynasty there is a domed tomb at Qurneh, and what of the domed recess in the earliest buildings at Ur? What of the domed hemicycle so constant in Imperial Rome?

The other important building is the keep, which is 54 feet high and 34 feet square. It is entered, at 18 feet up, by a door with a drawbridge which was reached by a small secondary tower with a staircase. Thus on raising the drawbridge there was no entry to attack below 18 feet. Such towers are also referred to Syrian influence. There are no less than five plans of the different levels and seven whole-height vertical sections in different aspects, rendering very full details of the doors, windows, and roofing. The plans of ten other convent towers are given for comparison. The work, though brief, is essential for the comparative study of architecture of the mediaeval period, and we owe much to the fine plans of the series of M. Monneret.

L'Arithmétique au moyen Empire. O. GILLAIN. 8vo. 324 pp. Bruxelles, 1927. (Fondation Reine Elisabeth.) N. P.

The mathematics of the Egyptians may be regarded from various points of view. M. Gillain is concerned with the arithmetical view, which is the most evident, and concludes with the subject of the conceptions of number and processes.

Before we reach that stage, however, there is another point of view, that of the historic origin and growth of the science, for which we may have some regard, as it explains the method. The earliest need of number and quantity is in the

division of food, and problems about food are the most usual in the papyri. A common sight in the plains of Egypt is a party of men all sowing in the Nile mud. They are out all day, and have a sack of little loaves sent with them; how much is each man to have? There may be 35 loaves in the sack to share among 12 men. Each will have 2 loaves, and 11 are left over; each will next have 1/2 a loaf, and 5 are left; each takes 1/4, and 2 are left; lastly, each takes a 1/6. As a matter of arithmetic it is simpler to say 2 11/12, but as a practical division of food in the field the best line is by 2 + 1/2 + 1/4 + 1/6, and such was the Egyptian's way, which became rooted in his mind. It is just the method of distributing shares of money in a Scottish fishing crew. Another frequent problem was to divide a quantity of food or land in some fixed proportion, as when an elder brother took a larger share than others. The method was to add the relative proportions on any basis; then the actual quantity divided by the sum of the proportions showed how to multiply each proportion to find the true amount. Strange as the approximation by piecing a result together may seem to us, we yet apply the same method in our long division, subtracting a simple multiple, taking the residue, and subtracting another multiple for the next decimal place. In other ways the prominence of the food basis appears, as in the many problems about the contents of granaries, which form the starting point for methods of cubic measure, and involve the area of a circle.

Upon this utilitarian basis there was not much growth of the abstract ideas. The division of a quantity into equal shares was extended into shares in arithmetical progression, and other series. The idea of a series of powers was begun with powers of 7 up to 16807: further, the properties of the sum of a series were in view. How much further theoretical mathematics may have extended is not shown by the very few documents that have come down to us. It should be noted that as the problems of the Rhind papyrus deal entirely with fractional amounts it should be regarded as a manual of fractions, and all that may have existed of the science of integral numbers is lost to us, except the one instance of powers of seven.

The book before us opens with an introduction describing the sources of information. The methods of working are next fully detailed. Addition of fractions was done by reducing them all to a common denominator and adding the numerators; or sometimes not to the full denominator, but a factor of it, and stating the numerator with a fraction. The necessity of using only numerator 1 led to expressing 6/7 as 1/2 + 1/4 + 1/14 + 1/28; it was this lack of notation which kept the Egyptian back. Subtraction of B from A was regarded as finding C, which added to B would make A. To subtract 2/3 + 1/15 from 1, the difference, 9/30, is reduced to 1/5 + 1/10. Multiplication by a compound fraction was done by using each term separately, and adding the products. Division was managed by inverting the fractional divider, and using it as a multiplier.

As we need to use tables of multiples, either in print or in the memory, so the Egyptian required long tables, and many of them, for the decomposition of fractions having larger numerators than 1. Thus 2 ÷ 29 is 1/24 + 1/58 + 1/174 + 1/232, or as we should write it (29 + 12 + 4 + 3) ÷ 696, or 48/696. Such was the fatal hold that the primitive food division retained in the structure of the Egyptian mind; the line of national thought had grown in that way, and could not outstep it. When we look at the cumbrousness of numbers in Greek

or Roman notation, or even at the limitations of expression in Newton's time, it is evident how thoughtlessly dependent we are on the invention of facilities of expression, as well as of thought.

The problems quoted and analysed are examples of the general principles of working stated above. The highest point in natural constants is the ratio of circumference to diameter. This is involved in finding the area of a circle, and the Egyptian by some practical means hit on the very convenient rule that a circle of 9 diameter is equal to a square of 8. This implies that the ratio of radius to circle is $9^2 : 16^2$, or 81 : 256. This, instead of the true 3·1416, gives 3·1605. The actual casing of the Great Pyramid gives 3·142, and it is clear (from the multiples of the cubit) that it was set out by the ratio 22 : 7, or 3·1428; the 9 and 8 method, therefore, was not the limit of knowledge, but only a convenient simple rule. Another great constant, the ratio of diagonal to side of square, the Egyptian took to his bosom by adopting both side and diagonal units for a double system of measure, especially for land, without ever attempting an equation between them.

We can but congratulate M. Gillain on his thorough discussion of the groundwork of the ideas and methods of the Egyptians, and echo Sir Thomas Heath's opinion that this is "a thoroughly sound exposition of the subject."

While naming the approximation to the radius : circle by $9^2 : 16^2$, it may be noted that this is one instance out of two series of such approximations. To the $9^2 : 16^2$ there naturally follow the series of multiples $18^2 : 32^2$, $27^2 : 48^2$, etc.; and another series starts with—

$$4^2 : 7^2 = 3\cdot06250$$
$$13^2 : 23^2 = 3\cdot130178$$
$$22^2 : 39^2 = 3\cdot142562$$
$$31^2 : 55^2 = 3\cdot147763$$
$$\text{etc.,}$$

that is to say, the faulty first ratio is amended by adding the $9^2 : 16^2$ until it passes the true value 3·14159265, leaving $22^2 : 39^2$ as a good approximation; though this is not equal to the marvellous 113 : 355 = 3·14159292, only a ten-millionth too much.

JOURNALS.

Bulletin of the Museum of Fine Arts, Boston, Oct., 1928.

REISNER, G. A.—*The empty sarcophagus of the Mother of Cheops.* This account of the final clearance of the tomb of Hetep-heres occupies 13 pp., with many illustrations. The opening of the alabaster sarcophagus was witnessed by five high officials and three of the staff; unhappily it proved entirely empty, but a discoloration showed that it had been used. It was later removed safely to Cairo. A filled-up pit in the floor was cleared out, and proved to be a shaft descending to a chamber several metres lower, but this had never been used. A blocked-up recess in the side of the upper chamber was then opened. It seems to have been left unfinished, only the ceiling and upper part being smoothed, and the rest of an intended chamber left in the solid. These two unfinished extensions show that the work was hurried at the last and could not be completed before the burial. In the closed recess stood the alabaster canopic box, of the same polished work as the sarcophagus. In it were packets of the internal organs, and in two of the four compartments was a solution of natron. This is an earlier instance of such liquid preservative than that found in the canopic box of Sat-hathor-ant (*Lahun* I, 20). From all the details, Dr. Reisner has gradually reconstructed the crime of the destruction of the queen's body. Yet, after all, may the preservation of the body have been separate from the hiding of the furniture? May the body still be in some unnamed unmarked deposit? If it had been broken up, at least some pieces would have been put into the sarcophagus.

The very minute care taken in recording every object and its position has made it possible to reconstruct the perished woodwork, and place the gold inlay hieroglyphs and gold casing into their original relations. Thus the carrying chair and the baldacchino stand now in the Cairo Museum as they originally appeared, and a copy in gilded wood has been executed for Boston. Also in Cairo there are a large alabaster jar, the set of toilet vases, other alabaster vases, the copper basin and ewer, the canopic chest, gold drinking-cup, gold saucers and razors, beside flint razors. The workmen had left behind five copper chisels or points from their work, also now in Cairo. So ends the most laborious piece of preservation and reconstruction, and we may hope that Dr. Reisner will now be able to devote himself to the permanent record of all his work in Egypt, without which the scientific value of it will vanish. It is pleasant to us to note that a former worker of the British School at Qau, Lt.-Commander Wheeler, was the principal assistant in all the above work. The other assistant was another Englishman, the late Mr. Dunham, whose death is a recent loss to archaeology.

Bulletin of the Cleveland Museum of Art. Oct., 1928.

This gives photographs of a Greek necklace with ball beads covered with very minute granulated patterns, the gold globules being only 1/75th inch wide, perfectly spaced and adjusted.

Journal of Roman Studies. 1927.

MILNE, J. G.—*The ruin of Egypt by Roman mismanagement.* This is a valuable summary of the economic causes of ruin in Egypt. The earlier Ptolemies had managed finance through the Greek colonists; later the Greeks were mixed with Levantines and management became corrupt. The kings only got a diminishing revenue and borrowed heavily to bribe Rome: but the inhabitants did not show distress. Augustus took over the country "the tenants of which had for some generations been left to manage it for their own benefit: the nominal owners had been practically bankrupt, though the property in itself was perfectly solvent." The Ptolemies had taxed by corn and by monopolies. Augustus kept up the corn tax, but exported it all; he abolished the monopolies in the interests of Roman merchants, but taxed the traders. A poll-tax was also established, theoretically as equivalent to military service. The Roman policy was at every turn to take possession of the land, and for this the temple lands were confiscated and the priests paid salaries as servants of Rome. This policy, like Ismail's, is fatal to success, and now Fuad has reversed it and is dividing Crown lands among the peasantry. The middle classes were oppressed by being made responsible, not only for the pence—as in England—but also for collecting all the taxes. "Before the end of the 1st century the pauperisation of the middle classes must have been fairly complete: the stores of capital which they had accumulated under the later Ptolemies had been exhausted, and, as there was no more to be squeezed out of them, the pressure was transferred to the actual cultivators of the soil." This is a lesson for England in the prospects of taxation. The revolts followed, villages were completely ruined under their burdens by 200 A.D. Bands of men lived by brigandage, and the picture of this is in the Theagenes and Chariclea of Heliodoros.

During the 3rd century the country decayed, currency vanished before barter, and no one would take up public work. Diocletian tried to clean up the Empire by a stiff official management, and made Egypt free to use the Roman currency. But this was too late, the flood of depreciation went on to meet the prices forced up by rival trade unions (*see* ANCIENT EGYPT, 1922, p. 105). Under Constantine nearly all the inhabitants of a village had fled, and only three out of twenty-five were left to pay taxes. In the 4th century a kind of feudalism arose, when a community put itself under the protection of a wealthy man, who could stand up against the government, raise his own local forces, and even issue his own currency. In the end the Arab invaders were often welcomed, much as the Gaulish proprietors preferred to give part of their land to the Goths and have done with the tax-gatherer. It is a melancholy thing that all this ruin was brought about, and the government committed Rome to further ruin by pauperising a useless people with doles.

Archaeological Research on the Ancient Lolang District. By T. SEKINO, S. YATSUI, S. KURIYAMA, T. OBA, K. OGAWA, T. NOMORI. Sm. folio. 2 vols. 1925. (Government General of Chosen.)

This is another fine publication of plates, which does honour to the archaeological school of Japan, and the number of writers here will show how well it is spreading. Contact with the West is shown in the forms of wide-bladed arrow-heads, exactly like some brought by the Scythian invasion to Palestine and Egypt. We only regret that we cannot enter at length on so interesting a field of study.

NOTES AND NEWS.

THE first number of ANCIENT EGYPT for 1929 will contain a more detailed account of our excavations at Beth-peleth (Tell Fara), now in progress. These will probably be continued during the ensuing season.

We also hope to issue short summaries of the archaeological work of various bodies in the season now drawing to a close, and beg that the excavators will send information in time. We hesitate to issue accounts at second-hand, as rumours are so abundant in the outskirts of archaeology, but direct news will always be welcome from the various British diggings, E.E.S., P.E.F., B.S.A.J., etc., the expeditions in Mesopotamia, India, and other outposts, and the campaigns of our American colleagues in the East.

Exhibitions of antiquities in July—one or more of which have always been held annually since Flinders Petrie's first exhibition in 1884—have proved a source of interest, and of training in archaeology, to the general public, and their interest has been sustained lately at other times of year by other exhibitions, notably those wonderful collections from Ur of the Chaldees.

In the room at University College where we generally hold the annual exhibition of the British School, there has lately been an exhibition showing results of various excavations in Great Britain; we welcome this new development.

An apology is owed to our subscribers and readers for the late appearance of this fourth part of ANCIENT EGYPT. The delays in issuing parts iii and iv were due to a fire which broke out at the block-makers, and hindered the preparation of plates. Subscriptions for 1929 may now be sent to Lady Petrie. The payment of ten shillings entitles the subscriber to be an Associate of the British School of Archaeology in Egypt, and to receive the *Journal* post free. Membership of the School is obtained by sending one guinea, or two guineas, for which a volume, or a double volume, is given. For seven shillings, ANCIENT EGYPT is sent. One cheque covers both subscriptions. Many subscribers are now including an additional donation, that the excavation of Beth-peleth may go forward unhindered.

RECENT DISCOVERIES, BY THE BRITISH SCHOOL OF ARCHAEOLOGY IN EGYPT, AT BETH-PELETH.

A LANTERN LECTURE on the results of the season will be given by Sir Flinders Petrie, at University College, Gower Street, on

Thursday, May 23, at 2.30, repeated on
Friday, May 31, at 5.30,
Saturday, June 1, at 3.

The lecture is open to the public, without fee or ticket.

The Annual Exhibition of Antiquities will be open from July 8 to 27, from 10 to 5 daily, and on two evenings, July 10 and 20, from 6.30 to 8.30.

NO NOTICES OF THE EXHIBITION WILL BE SENT,

but there will be reminders instead, in the daily press.